

# THE CULTIVATOR.

NEW

"TO IMPROVE THE SOIL AND THE MIND."

SERIES.

VOL. II.

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No. 4.

## THE CULTIVATOR

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## THE CULTIVATOR.

### MONTHLY NOTICES.

COMMUNICATIONS received, since our last, from J. P. Norton, D. K. Minor, Chas. Hamilton, J. W. Williams, S. W., C. Hamilton, W. Jennison, T. H. Hyatt, Za. Drummond, J. M. B., S. W., B. P. Johnson, H. Boyd, W. Wadsworth, E. N. Horsford, E. Comstock, L. Durand, John Crary, J. A. Rhodes, Vindex, D. G. Mitchell, A. L. Bingham, H. Gardner, H. Ford, A Farmer's Son, S. W. Jewett, D. K. Young.

From Messrs. WILEY & PUTNAM, publishers, New-York, we have received No. 1 of "The Chemistry of Vegetable and Animal Physiology," translated from the Dutch of Dr. G. T. MULDER—"Guano, its origin, properties and uses, with directions for using it;" and "A Lecture on the Philosophy of Vegetation, by W. A. SEELEY, Esq."—From some unknown friend, "Transactions of Clinton Co. Ag. Society for 1844"—Catalogue of Western Reserve College for 1845—From Hon. H. L. ELLSWORTH, his Annual Report from the Patent Office—From the Authors, an Address before the Addison Co. (Vt.) Ag. Society, by S. H. JENISON, Esq., and an Address before the Litchfield Co. (Ct.) Ag. Society, by T. S. GOLD, Esq.—From the publishers, Messrs. APPLETON & Co. New-York, Stewart's "Stable Economy," reprinted from the last English edition, with notes and additions by A. B. Allen, Esq.

Our respectful acknowledgments are due to Governor REID, of the Island of Bermuda, for a copy of his work entitled "An attempt to develop the LAW of STORMS, by means of Facts arranged according to Place and Time; and hence to point out a course for the VARIABLE WINDS, with a view to PRACTICAL USE IN NAVIGATION." The volume embraces 572 pages, and is executed in beautiful style. The design of the work seems to be rather to embody facts and excite inquiry, than to defend theories. A large amount of interesting and valuable matter seems to be here collected relative to the science of meteorology, and the work is eminently worthy the attention of those whose taste and opportunities may lead to an investigation of the laws of atmospheric phenomena.

An interesting communication from WM. WEBB, Esq. of Wilmington, (Del.) on the proper culture of corn, and the process of making sugar from its stalk, reached us too late for this number. It will appear in our next. We shall be glad to receive the sample of sugar spoken of, by Express.

CIRCULATION OF THE CULTIVATOR.—We have the pleasure of announcing to our agents and friends, that through their kind and efficient exertions, the circulation of "The Cultivator" now amounts to over THIRTEEN THOUSAND copies, being an average accession of one thousand copies a week since the commencement of the present volume. This is a much larger circulation than we have had for the last two years at this season of the year. For these tokens of the public approbation of our labors, we are by no means ungrateful; and while tendering our thanks to those who have so efficiently aided us in our efforts to "improve the soil and the mind," both by their contributions to our pages and their exertions to extend the circulation of our paper, we beg to assure them that we shall spare no exertions in our power to make The Cultivator more and more worthy of their regard.

CORRESPONDENCE OF THE CULTIVATOR.—The extensive correspondence of our publication, we presume is regarded with interest by our numerous patrons. It scarcely requires an argument to show that every individual is more or less concerned with the doings of others, especially with those of his fellow men, who are engaged in the same occupation with himself. Aside from the innate desire for the acquirement of information, and the pleasure which every one feels in attaining it, we can easily perceive that all knowledge may in some way become subservient to our interest. All facts or truths should be collected and preserved—thus constituting a treasure from which we may draw at our need, and from which we may derive light to illumine many a path which it may be our fortune to tread. In this view, should be regarded the information brought out by the correspondence of men of enlightened minds and observing habits, in various parts of the world. Our stock of knowledge, our store of facts of the most valuable kind, is thus increased.

In our present number, we give letters from three highly intelligent American gentlemen in Europe, viz: Mr. NORTON in Scotland, Mr. MITCHELL in England, and Mr. HORSFORD in Germany. In addition to this, our columns show a broad correspondence in our own country—embracing communications, as will be seen, from no less than twelve States, from Maine to Missouri. Among these will be found the letters of our traveling correspondent, SOLON ROBINSON, which we cannot doubt will be read with interest and advantage. Mr. R.'s narratives and descriptions are graphic and spirited; and we have no doubt that the nature and advantages of the various sections of the country through which he passes, as well as the condition of agriculture, &c., so far as can be learned, are generally faithfully delineated. It is possible that there may be occasionally an unnecessary degree of pungency in his remarks, but we feel confident that there is, in no case, the least design to give any unfair coloring, or to make statements not in accordance with the public good.

MR. DOWNING'S WORKS.—We invite the attention of all lovers of rural improvement to the advertisement of

Messrs. WILEY & PUTNAM, booksellers, New-York, published in this number. Every man of taste should possess copies of these books. Should any of our readers at a distance, desire our agency in procuring any one or more of them, it will afford us pleasure to attend to their orders.


**GREAT SALE OF IMPROVED CATTLE.**—It will be seen by an advertisement in this paper, that the extensive and well known herd of Improved Short Horn Cattle, the property of E. P. PRENTICE, Esq., Mount Hope, near this city, are to be sold at auction in June next. This sale is well worth the attention of all who wish to procure pure bred animals of this breed, as the public may rely upon the assurance that the animals will all be offered, and struck off to the highest bidder, without reserve. The list embraces a large number of animals of both sexes and all ages, many of which have taken prizes at the exhibition of the N. Y. State Ag. Society. Gentlemen at a distance, who cannot attend the sale, may find it to their advantage to avail themselves of the offer of our associate, Mr. HOWARD, an excellent judge of cattle, and upon whose judgment in selecting and purchasing such animals as they may wish to procure, they may safely rely.

**NORMAN HORSES.**—We would call attention to Mr. Harris' advertisement in this number, for the sale of Norman horses. From what we can learn, we have no doubt that they are a valuable stock, and well worthy the attention of those wishing to purchase.

**SWEET, SOUR AND CORELESS APPLES.**—We have condensed the communications of several correspondents on these subjects, but they will still occupy too much room to admit of their publication during the present pressure on our pages. We may make room for them hereafter.

**SAMPLES OF WOOL.**—We have received from J. R. SPEED, Esq. of Caroline, N. Y., several samples of wool. Mr. Speed has a flock of 45 merino sheep, which averaged 5 lbs. of wool per head, which sold for 50 cents per pound. The samples marked 2, 4, 8, 9, are of excellent quality. They must be a valuable flock.

**SEWARD'S PATENT SEED-SOWER.**—We have been shown one of these machines, which we think from its simplicity, and the perfect manner in which it performs its work, is one of the best we have seen. The manufacturers are M. and S. L. Seward, Guilford, New-Haven county, Conn. The machine will sow onions, turneps of all kinds, carrots, beets, peas, &c., at any desired distance, from 3 to 16 inches. Two acres of onions may be readily sown in a day, by one man, in the best manner. Mr. Thorburn of this city, will shortly have the machines for sale.

 We are much pleased to see the awakening spirit of improvement in the South-west. We learn from the *Shield*, published at Eufalla, Ala., that our friend and correspondent, ALEXANDER McDONALD, is elected President of the Barbour county Agricultural Society. The efforts of this association, appear judicious and effective.

**BUTTER IN WELLS.**—Our correspondent "Indicator," thinks there must have been some mistake about the circumstance mentioned in our last vol., page 70, of Mrs. Bement's butter having been kept two years in a well; and he doubts whether butter will sink in water at all. The case we mentioned is not a solitary one. As long ago as 1831, a correspondent of the *Genesee Farmer* gave an account of a roll of butter being taken from a well, which had been dropped in *twenty-one* years before. The writer says a piece of it was presented him, which "was as fine and sweet as the day it was churned," and for aught he knew, "better, for it was the very cream of butter."

**LARGE CALVES.**—The *Elmira Republican* says, a Durham bull-calf owned by W. W. Ballard, of Southport, weighed at birth, 98 pounds; at the age of four months and twenty-nine days, 588 pounds; and at 11 months and 24 days, 1,141 pounds. The same paper also states, that Mr. Brower, of Moreau, Saratoga county, has a bull-calf which weighed, at birth, 95 pounds; and at six months and one day old, 774 pounds.

**BERMUDA GRASSES.**—Mr. Redfield of New-York, informs us that the botanical names affixed to the specimens of Bermuda grass, noticed in our Dec. number of last vol., were furnished by Prof. TORREY of that city.

**THE MEDAL OF THE N. Y. STATE AG. SOCIETY.**—The dies for the new medal of this Society, cut by Mr. Taylor, of Birmingham, England, have been received, together with some specimens of the medals. For the emblematic design of this chaste and beautiful article, the society is indebted to the good taste and judgment of our countryman, F. ROTCH, Esq., now in England. On the face of the medal is an elegant figure of Ceres, the head adorned with a garland, on the left arm a cornucopia, in the right hand a wreath; in the back ground, sheaves of wheat. On the reverse, a circular wreath, embracing fruits and heads of grains, on the outer margin of which are the words "New-York State Agricultural Society," the space in the centre being designed for the names, &c., of the individual to whom it may be awarded. The medal is in every respect creditable to the society and to the individuals by whom it has been executed.

**LARGEST OF ALL PIGS.**—We are informed that SAM'L ROBBINS, of Salisbury, Conn., lately slaughtered two pigs, in part of the Byfield breed, nine months and seventeen days old, one of which weighed 388, and the other 432 pound.

**HOWELL'S PATENT TANNING MACHINE.**—The New York Farmer & Mechanic highly recommends this machine. It is said to effect a great saving of time, labor, and expense. Calf-skins tanned in a week; upper leather in a week, and sole-leather in from fifteen to thirty days. The editor says he has examined various specimens of the leather tanned by this machine in the above space of time, and he pronounces them excellent.

**BALLS OF WOOL IN LAMBS' STOMACHS.**—Lambs which are dropped in the winter, frequently exhibit a habit of chewing and swallowing locks of wool which they pull from their mothers and other sheep. From this wool, balls are sometimes formed in the lambs' stomachs, which it is supposed occasions their death. In the *Maine Farmer*, Maj. E. Wood mentions a case of this kind having happened in the flock of his son, Mr. T. Wood. This unnatural habit of lambs seems to be caused by a desire to fill the stomach with some bulky substance on which it may ruminate, or chew the cud; and not finding its natural food for this purpose, it is induced to swallow the indigestible wool. The trouble would no doubt be prevented by giving the lambs suitable hay with turneps or potatoes, and feeding the ewe with those substances which would prevent the milk from having a costive tendency. We have frequently reared lambs in winter, but have been careful in providing suitable and abundant food, and never had them troubled with wool in the stomach.

**SCOTCH CATTLE.**—In the report of the commissioner of patents, we notice a letter from STEPHENSON SCOTT, on the subject of provisions for exportation, by which we discover that that gentleman is the author of a valuable series of letters on agricultural subjects, published twenty-five years since in the *American Farmer*, with the signature of "Albion." We read those letters at the time of their publication with great interest, but have never been able till now to learn their authorship. Mr. Scott appears to be well acquainted with the peculiar properties of various breeds of cattle, and though he thinks very highly of the Herefords and Durhams, he observes that he is inclined to think that some of the Scotch cattle are better adapted to a large portion of our country than any of the English breeds. The polled Galloways, particularly, he thinks would be very useful, and observes that—"They, like their countrymen, are hardy and thrive almost everywhere, and are large enough for all purposes and pastures."

**PUPPIES SUCKLED BY A SHEEP.**—The *Prairie Farmer* says that Mr. S. S. Crocker has a pair of puppies, a cross of the bull and shepherd's dog, which are suckled by a sheep. The ewe, it is said, manifests great kindness for them.



## POTATOES.

THE malady which has prevailed for a year or two, among potatoes, may operate as a discouragement to planting them as extensively as formerly. We venture not to give an opinion, from the little that is yet known, in regard to the origin of this disease, or to recommend any specific remedy; but from what we have seen, should not hesitate to adopt the following rules in planting, cultivation, &c. 1. To plant on loamy soils, of medium dryness. 2. If stable manure is used, let it be well mixed with the soil, and not left (especially if unfermented,) in too great quantity in the hill. 3. Plant good sized, sound potatoes, cutting only the largest ones. Very small potatoes, or small pieces, are not likely to sprout so vigorously as large ones. The first food of the young plant is the substance of the old potatoe, and the greater the supply of this food, the more rapid, of course, is the early growth of the shoot. It is true that under entirely favorable circumstances of soil, season, &c., the shoot from a small potatoe or from small pieces, may succeed, and the product from them in such cases, may not be much less; but it is reasonable that the shoot from a good sized and sound potatoe would be stronger, and less predisposed to suffer from any unfavorable influences belonging either to the soil or atmosphere. 4. Plant as early as the ground is in a proper state. Many cases might be cited where early planted potatoes escaped the blight or disease, and produced a good crop, when the same variety, planted later on a piece immediately adjoining, were much injured. 5. Plant only varieties of known hardiness. Much depends on this. Some kinds have always been remarkable for their healthy, hardy constitutions; at the same time producing more than others under the same circumstances. Of the feeble sorts, there is the Mercer, called also Chenango, Meshanic, (corrupted from Neshannock,) which from its supposed or acknowledged good qualities for the table, has been widely cultivated for several years past; but which has always been subject to blight—more so than most other kinds. We are not aware of any good qualities possessed by this potatoe that are not to be had in several other kinds, which have the advantage of greater hardiness and productiveness as well as soundness. 6. In cultivation, keep the crop clean from the "first start," but avoid plowing or working it when the ground is so wet as to be in the least muddy, and do not use the plow or cultivator after the blossoms appear; as a mutilation of the roots after this, may damage the *setting* of the tubers. Having used all these, and other reasonable precautions, we may say in the language of a witty disciple of Esculapius,

"If after that they choose to die,  
Why, verily I let's 'em."

## MAKING FENCE.

EVERY man knows that a good, strong, neat and straight fence is better than a crooked, ugly, and inefficient one. We have plenty of awkwardly built board fence all through the country; a little more pains, and some knowledge, would have made them better in every respect, with the same or less material, with no more labor. Indeed, working by rule, is not only nearer and better, but is generally much faster than by irregularity.

In *digging the holes*, they should be large enough to allow the pounder to work freely all round, and should in no case be less than two feet and a half deep. If less in depth, the fence will be in danger of leaning and becoming twisted, drawing the nails, lessening its strength, and destroying its good appearance.

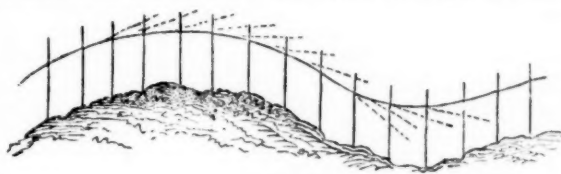
To *set the posts perfectly straight*, stakes should first be driven on the line as accurately as possible, and two posts several rods distant, firmly set, perpendicularly, and precisely on the line. A strong cord, with a length twice as great as the distance between these two posts, is then to be very tightly stretched from one post to the other, near the surface of the ground; and passing back again from the second post to the first, near the top of each post. The face of each post is then to be set against these two cords: in this way, the workmen form a true right line with them, not varying half an inch, with the

greatest facility. The *pounder*, for beating the earth firmly about them, should be shod at the lower end with a cast iron head. One hand should shovel in slowly, while another beats the successive layers firmly with the pounder; and if water is occasionally poured in, to soften the earth to the consistency of very stiff brick clay, it will pack more closely, and the post stand firmer when it becomes dry.

This mode of setting by two stretched cords, will enable a common operator to set nearly twice as many in a day, as by simply ranging with stakes without a line; and in addition, the work will be more accurately done. The cord, to be sufficiently strong, should not be much less than common bed-cord.

In *nailing on the boards*, the top board is first to be very accurately placed, as a guide for the rest of the fence. Where the surface of the ground is level, the top of this board should be perfectly straight, which may be done by stretching a cord tightly across the face of the line of posts, raising it from the slight curve it falls into, by a nail driven a quarter of an inch into each post. A little experience will enable any one to dispense with the use of the line, driving the nails in an exact range. Against this line of nails, the top board is to be placed and secured by nailing.

Where the surface of the ground is uneven, the fence, to suit it, should not be broken into awkward and irregular angles, but should pass over it by a succession of graceful curves. Such curves are easily made by a row of nails as already stated, each successive nail being driven a quarter of an inch or less, above the right line, in passing over a hollow, and below the right line, when rounding over a hill. These successive distances are easily estimated by the eye, with sufficient accuracy, without measuring. The annexed figure, strongly represent-



(Fig. 33.)

ed, to exhibit more plainly, will show how this is done. An experienced hand will thus lay off fifty rods in half a day. Marking the height of the fence on every fifth post with chalk, previously, will be useful.

To assist in nailing on the other boards, accurately and rapidly, procure two pieces of board, the length of which is to be equal to the height of the fence, or a little more, and saw notches in them, as represented in the annexed figure. The projections thus left, support the boards while they are nailed to the posts, these pieces of board being hung, by the upper projection, upon the top board, already in its place. All the distances between the different boards are thus measured without error, and one hand will proceed alone with the work as fast as two could do without this contrivance.

Then nail in blocks, made of square pieces of the fence board, on the face of the posts, between the boards; and over the whole of these, nail an upright facing board against each post, which se-

(Fig. 34.) cures the whole firmly to their places. These blocks may be made from small waste pieces, and require very little time to fit and nail them, while they afford great and permanent strength to the fence, as it is impossible to tear off or crowd from its position a single board without tearing down the whole fence. As but a single nail is thus needed for a board at each post, and also a single nail for each block, a less quantity of nails is needed in constructing it.

A neatly made fence, with narrow horizontal boards, has a much better appearance in the immediate vicinity of a dwelling, and among trees, than a *picket* fence. Where made of rough boards, as common farm fences they may as well be made neatly as awkwardly; and a coat of lime white-wash, early in summer, for a few successive seasons, will render these rough materials less liable to decay than a covering of oil paint.

A proper width of the boards, and of the distances be-

tween them, is a matter of some importance. A neat farm fence may be made of boards four inches, five inches, and nine inches wide, as follows—the top and cap board, four inches wide each; the three next, five inches wide; and the bottom one nine inches. The distances asunder may be, between the two upper, seven inches; next five and a half inches; next, four inches, and the lowest, two and a half inches. A lighter and more elegant appearance will be given by using boards one inch narrower, and increasing slightly the distances asunder. For a finished fence near a dwelling, five boards only, three inches wide, should be used besides the bottom board, which should be eleven inches wide; and the distances apart should be five inches, four and a half, four, three and a half, and three inches. The posts should be square and cased handsomely.

Salt, which renders posts more durable, may be applied by boring an inch hole, downwards, into each post, before the hole is quite filled with earth, putting in the salt, and plugging it in.

#### FARMER'S DUTIES TO THEIR CHILDREN.

HARTFORD COUNTY (CT.) AG. SOCIETY.—We have received the Transactions of this Society for 1843 and 1844. They contain much useful matter. A "Report on Blood Stock," by CHARLES A. GOODRICH, gives, in our opinion, a very judicious view of the subject of improving our neat cattle.

The address delivered before the Society in October last, by RALPH R. PHELPS, Esq., is really one of the most valuable productions of the kind we have ever seen. Whether we regard the subject matter, or the point and perspicuity of expression, it is, we might say, a model. We regret that the great press of communications, prevents our giving more than a brief notice. We must, however, find space for the following extract: Mr. Phelps observes—"It has been a source of complaint with farmers, that they cannot keep their boys at home; that they must leave the farm for a profession, a clerkship, a trade, or even a pedler's trunk or cart. This I consider a great evil, which demands a remedy."

After speaking of the causes of the evil, among which he enumerates false ideas of honor and respectability, "surly, morose, and scolding habits of parents," and "the rough, uncouth, and comfortless appearance of many farmer's houses and out-buildings," Mr. P. proceeds to point out a remedy as follows:

"Let no farmer's wife think her children too good to labor; but, on the contrary, let her strive early to fix habits of industry. Let every mother teach her sons, that while labor on the farm is honorable, idleness, ignorance and vice alone bring reproach. And when this lesson is thoroughly impressed on the mind of her son, and corresponding habits are formed, that son will be likely to make an efficient man and a useful citizen, whether he be following a profession, or be engaged in the more safe and more pleasant pursuit of agriculture. But when the mother, without this lesson, and without these habits, undertakes to make her son a gentleman, she is far more likely to make him a loafer."

"Let parents labor to give all their children a good education. Let the absurd notion, that a farmer needs no education, be banished from every dwelling. There is no pursuit, where intelligence, and a well cultivated, and a well disciplined mind is more necessary, than in the proper management of the farm. Let the mind be enlarged by a knowledge of history, political economy, and especially the sciences connected with agriculture. Let the young farmer enrich his mind by general reading. Let him thoroughly understand our political institutions; and be able to judge of his political rights and duties, without the aid of some demagogue, who had rather devote his time to watching over the public interests, than to the pursuit of honest industry. In short, let the farmer be able to reason, to examine and to judge for himself, and he will soon take the elevated rank in society to which his calling entitles him, and he will no longer have the opportunity of complaining that professional men have too much influence. This will have a great tendency to attach farmer's sons to their homes and to their farms."

#### PRODUCTIVE COWS.

A correspondent at Norwich (Mass.) informs us that "Mr. Joseph Kirkland of that town, has kept on his farm the last year, six cows; three of them calved near the first of March, the others the last of May. From their milk he has made 981 lbs. of butter: at 14 cents per lb., the price at which the most of it was sold, it would amount to \$137.34. To which add the value of the skim

milk, at \$3.11 per cow, and the calves which were all raised, at \$3 a-piece, at the time of weaning, and it amounts to \$174.00, which will give to each cow on an average as the value of her product for one year, the sum of \$29. The cows were raised on the farm, and are from 3 to 6 years old; their keeping has been grass and hay. One cow gave, during the first week in June, on one day, 40 lbs. of milk, and on the next day 38 lbs., from which was made 4 lbs. of butter, or 2 lbs. each day; her milk was weighed several times in the months of July and August, and was found to weigh from 35 to 37 lbs. a day."

#### LABELS FOR STANDARD FRUIT TREES.

THE owners of fine and valuable collections of fruit, are often very much at a loss, and serious inconvenience and mistakes often arise, from the want of permanent names attached to the trees. In our last volume, two modes of making labels, one of painted wood, the other of zinc, were described by correspondents. A third, a very neat and permanent label, is made of stamped lead as follows: An iron plate, A. fig. 36, about six inches long and an inch wide, is screwed on another plate, B. of the same length, and twice as wide, by means of the screws at the ends, turned by their button-heads. A piece of sheet lead, with a width equal to the intended length of the label, is inserted between these two iron plates, as shown in the figure, and secured firmly to its place by means of the screws. The letter-punches are then applied to the lead successively, the edge of the upper plate, which should be thin, preserving them in a true line. Steel punches are best,



Fig. 35.

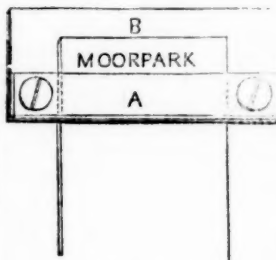


Fig. 36.

but common printing types will answer. The imprinted end is then cut off; a hole is made in one end, which is neatly and quickly done by a shoemaker's nipping-punch; and by means of a copper wire a little larger than a common pin, it is attached to one of the branches of the tree. The copper wire should form a loop one or two inches in diameter, so as not to cut the branch by the growth of the latter. Iron wire will do, but is more difficult to bend than copper, and is more liable to break off. Fig. 35 represents the label as finished. The wire should be twisted first closely at the hole in the label, to prevent the lead becoming worn by its motion in the wind, and again twisted at the ends to form the loop round the branch. A side branch should be selected, as being less liable to out-grow the loop. The leisure of the winter season, is a good time for the performance of this work.

#### SUCCESSFUL CULTURE OF TURNEPS.

It is a fact, familiar to most farmers, that when the soil is heavy, newly cleared land is finely adapted to the raising of the common flat turnep; but that after a few years, this quality seems to disappear, owing chiefly, as is generally supposed, to the ravages of the turnep fly.

A farmer in the western part of this State, entirely obviates this difficulty by a very simple expedient. His farm is a heavy fertile soil, and though well adapted to most farm crops, it appeared to be entirely unfitted to the turnep, like all others of a similar character. The successful mode he adopted, is as follows:—After having plowed and harrowed his ground, and reduced it to a fine tilth, he spreads over the surface several inches of old straw, which is suffered to lie a few weeks. Just before sowing time, it is burned, the surface is harrowed, the seed sown and brushed in. In this way, he uniformly obtains the finest crops. He ascribes his success to the destruction of the insects by fire; but whatever may be the cause, the practice is well worthy of trial by all possessing land of a similar character.



## AGRICULTURAL MEETINGS IN ALBANY.

These meetings have been continued weekly from the first, on the 16th Jan. of which we gave a brief notice in the Feb. number. We have furnished full reports of the discussions for the daily papers here; but for our own pages we are under the necessity of greatly abridging them, in order to find room for a sketch of all in our columns.

At the second meeting, Jan. 23d, the subject for discussion was "*The best means of advancing the Agricultural interest.*"

Mr. HOWARD, Assistant Editor of the Cultivator, after speaking of other causes of the depression of agriculture, and suggesting means for improvement, remarked that the prevalence of an inveterate habit of carelessness and negligence among farmers, in his opinion constituted a very great obstacle to improvement. Pass through the country, and we too plainly see the evidence of the existence and consequences of this habit. We see this in the neglected fences, badly arranged farm-buildings and barn-yards—and in the trees and fruits of the garden and orchard, destroyed by the caterpillar and curculio.

In offering a remedy for this, Mr. H. would proceed as he should do in attempting all other great revolutions: that is, he would begin with the *rising generation*. He would endeavor to enlist the feelings of the boy, at an early age, in the business of his future vocation—would induce him to bring the *MIND* to aid the hands in the prosecution of his labors. Teach him habits of observation and reflection. Especially induce in him the observance of systematic rules in the laying out and management of his business. Induce him to adopt as a motto, the advice of FRANKLIN to his young friend: "Lay down a little *PLAN* for yourself, and all your operations will become easy." Let him study the principles of his art—trace effects to their causes, and from well established truths be able to draw correct and useful inferences. Permit him not to imbibe the idea, heretofore too common, that the profession of agriculture is a menial drudgery, fit only for the ignorant and degraded; but show him that it is a noble calling, where the powers of the mind may find full scope, and in the study and practice of which, the mysterious and most beautiful operations of nature are unfolded to view.

Mr. H. would particularly encourage boys in reading books and papers on subjects connected with agricultural pursuits. The school libraries may furnish to all our youth an excellent medium for obtaining useful reading of this kind. Excite in them, if possible, a habit of reading books on natural history. Provide suitable rudimentary works on entomology and botany. As the boy studies these, stimulate his interest by permitting him to combine the knowledge there obtained, with his every day business. When, in his field labors, he meets with a worm, a moth, or a beetle, let him put it in a box carried in his pocket for the purpose. On returning home, he will find out its name and character, and give it its proper place in his entomological cabinet.

Mr. H. thought the establishment of a *MODEL and EXPERIMENTAL FARM*, under judicious management, would be a very effectual means of advancing the agricultural interest. He urged this matter with much earnestness, and advanced various arguments in favor of such an institution. Its great design and object should be the decision of doubtful points in husbandry and rural economy. There, the various breeds of animals might be subjected to an impartial test, and their relative value for specific purposes, fairly made known. Theories, deducible from experiments in the laboratory, are being every day thrown before the public. These, would there be subjected to the test of field culture—*nature's laboratory*—and without such tests, they could never become safe guides to the farmer. These points will never be decided by individuals acting in their ordinary capacity. Some persons are incapable of conducting experiments in such a manner that correct inferences can be drawn from them. Others cannot afford to risk time and money upon uncertain results; and others are so biased in favor of some favorite theory, as to preclude the possibility of arriving at the true result of an experiment. An establishment conducted by competent persons, with a single eye to the development of *TRUTH*, would be liable to none of these difficulties or objections.

The appointment of an *agricultural missionary*, or lecturer, Mr. H. said, would, as he believed, be an important auxiliary, in connection with other means, of advancing the cause of agricultural improvement. We may find in other countries an example in point. Mr. Blacker of Ireland, and Prof. Johnston of Scotland, have rendered very important services by their labors of this kind. It was not to be expected, perhaps, that an individual could be found for this business, whose opinions were in all respects so perfectly orthodox that no one could possibly make any objections to them; nor was it necessary that a lecturer of infallibility should be procured. The great benefit which would accrue from his mission and exhortations would be the stimulus given to study and investigation. Farmers would be aroused—they would devote their thoughts to their business—an examination would be commenced, to ascertain the truth of any new doctrines which might be promulgated; and the result could not fail to be beneficial.

Dr. D. LEE, of the Assembly, observed, that Sir Humphrey Davy had defined *SCIENCE* to be "refined common sense." Dr. L. thought the use of this "science," or this form of "common sense," would greatly advance the agricultural interest. He thought the farmer should be better educated—especially, that he should have more of that kind of knowledge which would enable him to reap a better return for his labor—would enable him to keep more of what he earns. "Ten days' work of the farmer, Dr. L. said, frequently did not bring him more than one day's work brought the lawyer." He thought the diffusion of knowledge, of the *right kind*, would tend to equalise the value of labor—would advance the interest of the farmer, as well as the whole community.

The meeting was further addressed by Mr. BETTS, member of the Assembly from Rensselaer county, Judge LELAND, of Steu-

ben county, Mr. McVEAN and Mr. YOUNG of the Assembly, and by Judge CHEEVER.

Judge C. thought the benefits of agricultural societies had been undervalued. It was a great misfortune to the agricultural interest, that farmers did not act sufficiently in concert. The people of other classes saw the benefits of association, and they so combined their forces that their action was felt. Their influence on the policy of government was obvious. Now he would arouse farmers to the importance of protecting their interests—he would have them united and firm in claiming of government their rights—the government should know that their voice is not to be unheeded.

At the third meeting, Jan. 30th, the question discussed was "*What Breed or Breeds of Cattle, are best adapted to the purposes of Farmers in the State of New-York?*"

Mr. SOTHAM said he was an advocate of the Herefords. He believed they would make more flesh with the same expense than any breed in the country—that they would carry themselves to market with less loss; and that their beef would, from its superior quality, command the highest price. In selecting these cattle, he had done so from a conviction that they would prove more generally useful here, than any other breed in England. He had had frequent opportunities of examining all the breeds there, and thought he was acquainted with the peculiarities of each. He had been perfectly satisfied with the Herefords here; and he only asked a fair trial for them, to satisfy others. He however considered mere opinions as of but little consequence in regard to cattle; he therefore proposed to have the Herefords tried on their own merits; and for this purpose was willing to put three steers and three cows, to a trial with the same number owned at this time by one man, of any other breed, under such regulations as impartial individuals should deem proper. He made this public offer for no other purpose than to have a fair comparison made with various breeds.

Mr. DANFORTH, of Jefferson county, member of the Assembly, said he began breeding with what is called the native stock. About sixteen years ago, he purchased a Short-Horn bull of the late Matthew Bullock, of Albany county. The calves produced from this animal and the old stock, were much improved for dairy purposes—they were also better for fattening. He kept them as he had formerly kept stock. They were more tender in constitution—did not winter so well—were not quite so good for labor—their dispositions were more sluggish; but on the whole, they were more profitable by at least twenty per cent. than the old stock. Some years since, Mr. D. used a Devon bull in his herd. The cross from him on that of the Short-horn bull, had proved excellent. They are more hardy, require less food, fatten easier, are better for work, and are as good for milk. Their superiority for labor and fattening is quite obvious—for beef, the Devon cross is better at three, than the others are at four years of age. Both Durhams and Devons had improved his native stock; but he thought the Devon had benefited him the most.

Mr. BEMENT said, within the last eighteen years he had had more or less experience with the Durhams, Devons, Herefords, Ayrshires, and natives, as they are called. He had found both good and bad milkers among the Durhams—generally speaking, the higher bred they were, the less valuable they were as milkers. But he was satisfied it was practicable to select from certain families of the Short-Horns, those from which a very superior breed of milkers might be reared—a race perhaps superior in this respect to all others. For his land, however, which was rather sandy and light, he liked the Ayrshires; and so far, was very well satisfied with them. He thought Durhams were better workers than had generally been allowed. He had seen them tried, and they did exceedingly well.

Judge LELAND, of Steuben county, said they had tried several breeds in his section—the Short-Horns, Herefords, and Devons, had all been there. Several years ago, Mordecai Hale, Esq., who was in some way connected with the U. S. Navy, sent some Herefords into that county; and perhaps he ought, in justice to the advocates of Herefords, to say that they proved the most generally useful of any stock they had tried. They were very hardy, were powerful in the yoke, and a decided improvement on the native stock, for the dairy. Comparing those Herefords with the herd owned at this time by Messrs. Corning and Sotham, he thought the latter showed that the breed had been improved in regard to a disposition to accumulate fat on the most valuable parts—the "quality pieces," as Mr. Sotham had called them; but while this had been gained, it was a question in his mind, whether they had not lost something on the score of muscular strength and constitution.

Judge L. remarked that his experience and observation had convinced him, that the *native* stock of this section would be improved, either by the Durhams, Herefords, or Devons—that is, a cross from either of these made more *profitable* stock for general purposes.

The discussion was continued by Messrs. BETTS, HOWARD, STEVENS, and others.

The subject of discussion at the fourth meeting was "*The best mode of managing and applying Vegetable and Animal Manures.*"

No report of this meeting was made, but this was the less necessary, as the subject was continued for the fifth and sixth meetings, Feb. 13th and 20th.

At the fifth meeting

Dr. LEE opened the discussion by remarking that by the term *manures*, was understood any substance that might serve as food for plants. The food of plants was derived partly from the soil and partly from the atmosphere—from the soil by means of the roots, from the atmosphere by the leaves. If it be an organized substance, it must undergo decomposition. For instance, one spire of grass cannot enter into the composition of another spire—it must be dissolved. It is most important in the preparation of manures, that while this decomposition should be thoroughly performed, none of the manure should be lost. It is for this purpose that compost heaps are made

They promote fermentation and decomposition, by which new affinities are formed. In the ordinary preparation of manures, large portions are dissolved and lost in the shape of gases—in consequence of exposure to the atmosphere. Other portions are lost by leaching—from want of shelter from rains and snows. This should not be so. They should be carefully sheltered, and the gases absorbed and retained by a covering of charcoal, peat, or other absorbing substance. In regard to the preparation, there were a great variety of opinions and practices. The first object, however, was to promote a decomposition. This was sometimes done by putting water upon the compost heap to induce fermentation; which generates much heat—especially in the winter. Compost heaps were also serviceable to absorb the liquid excretions of animals, which are liable to be washed away.

Mr. J. B. NOTT thought the farmer must rely mainly for the present and probably for some time to come, on the manures of the barn-yard. And it should be the object, in the first place, so to manage these manures that nothing may be lost. We should not allow its strength to be taken from it by frost and snow, to be drained off by rains, or dissipated by the winds. The fermentation of manures is often allowed to take place in such a manner that the most valuable portion is carried off, and it becomes nearly worthless. It has been well said that no farmer ever smelled his manure, without witnessing a waste of his property. The question had been raised in regard to the propriety of composting manures. It was the opinion of the late Judge Buel, and also of some other distinguished farmers, that the practice was useless. It was argued that the richness of the manure was lessened by fermentation. But there was one great disadvantage attending the use of long manure, and that was the seeds of weeds, &c., which would vegetate in the land and annoy the farmer. Fermentation in the compost heap would destroy most of these seeds—and cannot this fermentation be so conducted that no loss will accrue to the farmer? The "best method of applying manures," is an important question. He had had some experience, and had endeavored to observe the effects of different modes. He had come to these conclusions—that it was not proper to bury them very deeply, nor to leave them entirely uncovered. His soil was rather sandy, and plowing in manures to the depth of 6 or 7 inches had generally been attended with comparatively little benefit, but when they had been covered 2 or 3 inches, the greatest good had been produced.

Mr. SOTHAM agreed generally with Mr. Nott in regard to the mode of applying manures. But perhaps one reason why that gentleman had supposed there was but little benefit to be derived from plowing in manures, was, that he did not wait long enough for the manure to be decomposed. He thought plowing in long manures, for a tenacious soil, was highly beneficial. The soil is thus rendered more friable and adapted to the circulation of the roots of plants.

Mr. S. would briefly state his mode of managing barn-yard manures. He mixed various kinds together, in the following manner: First, he put down a layer of manure from the cattle-stalls; next, a layer from the horse-stables, and next a layer from the slaughter-houses—then the kind first used, and so on alternately till the pile was raised as high as convenient. In this situation it underwent a moderate fermentation, and when it was carted away for use, it was so cut down that all the various ingredients were mixed well together. He thought it very important that all animal manures should be saved, for they undoubtedly contained all the organic elements of plants—carbon, hydrogen, oxygen and nitrogen.

Mr. NOTT asked—"When is it best to apply manure to a corn-crop?"

Dr. LEE answered—when you plant the corn. The experiment spoken of at one of our meetings last winter, by Mr. Humphrey, the Mayor, was in point. He planted some corn on a very poor, sandy soil, with a small quantity of horn shavings in the hill. The result was that where the shavings were applied, he got 60 bushels to the acre, but where the shavings were not applied, he only got 15 bushels. He proposed to a friend of his last winter to soak his corn in muriate of ammonia. He did, and on a poor chestnut ridge he got 94 bushels of corn to the acre. There are certain salts necessary to the perfection of plants. Wheat contains phosphate of lime, without which it is imperfect. This substance escapes from animals in their urine. This should be preserved. It is probable that in this state there is millions of pounds of this phosphate of lime taken from the land annually. This loss must be made good, or the soil will grow poor. Seeds, Dr. L. said, should be steeped in those substances necessary to the perfection of the plant, before sowing.

Prof. EMMONS said he could not altogether agree with Dr. Lee in some points of vegetable economy. He, (Prof. E.) thought plants derived their sustenance almost entirely through their roots—the roots were evidently designed to take in the food of the plant—their spongioles were extended in every direction for this purpose. Leaves may be considered the stomach of the plant, where the food taken through the roots is digested. This is a question of practical importance, for if plants derive their nutriment from the atmosphere, then let manures be applied so as to ascend. It was possible that plants may absorb carbonic acid by their leaves; but was this their proper function?

Dr. LEE replied that he thought Prof. Emmons had misunderstood him—it was conceded that plants derive part of their food from the soil. The question was, how much? If we could know this exactly, we should know just how much manure to apply. It is clear that we must restore more than we take away. We were at present in the dark about this, but it was his impression that in taking off 100 lbs. in crops, 80 of the quantity comes from the atmosphere, which would leave 20 to be restored.

Professor HALL said different plants possess different powers. Some absorb more from the atmosphere than others. Take peas, for instance; the tops will remain green and flourishing, while an inch or two of the stalk near the ground may be nearly dried up. This shows that they absorb nutriment from the atmosphere. Besides it was known that plants flourished more luxuriantly in the vic-

nity of odors arising from animal and vegetable decomposition. A vine would move in the direction of a dung-hill, and flourish better if suffered to run over it. Some plants will flourish in pounded glass watered only with distilled water—others will grow without the roots being covered at all.

The President, Mr. PRENTICE, being called on, observed that the call had been unexpected, and he was not prepared with any data from which to give the information asked. He would state, however, that the peculiar manure alluded to, was the refuse of a fur-factory, and was composed mostly of the fatty substance, or blubber, adhering to the skins of seals, with portions of the skins and hair. Of this refuse, there was sometimes as much as three pounds from a single skin. Owing to the trifling estimation in which manures had formerly been held by the farmers in this vicinity, he experienced great difficulty in getting rid of this refuse. He had offered to give it away, and afford any facilities for loading it, &c., but strange as it may seem, the farmers would not take the trouble to cart it away, and he was actually under the necessity of purchasing a piece of land on which to deposit it. Its effects, as had been remarked, were quite remarkable. He had never seen so powerful a manure. He had applied it, with results astonishingly beneficial, as a top-dressing to his pasture grounds, but the effluvia from it when applied in that shape, was exceedingly offensive. He had mixed it with the sweepings of the streets, so as to absorb the gases; and for cultivated crops, he preferred to use it in this form, worked into the soil. For a top-dressing to grass, it was perhaps as well to spread it on without mixture. Where he had so applied it, the crop had been increased from one ton to three tons per acre. Care was needed lest too much should be applied. In one instance where it had been applied to a potatoe-crop, an enormous growth of vines was produced, some of them 8 or 9 feet long, but very few potatoes. On corn it had done well, when used in moderate quantities—giving, he thought, a third more than he had got by other manures. He had once applied it to his orchard, but put on so much that it destroyed about one-half his trees. He was unable to state, from recollection, the precise quantity he had used per acre in all cases.

#### NEW-YORK STATE AGRICULTURAL SOCIETY.

At a meeting of the Executive Committee of the New-York State Agricultural Society, on the 15th February, 1845, the following gentlemen were appointed

##### COUNTY CORRESPONDING COMMITTEES.

- ALBANY—C. N. Bement, Albany; Joel B. Nott, Gunderland; Amos Cray, Knox.  
 ALLEGANY—Alvin Burr, Laurens Hull, Angelica.  
 BROOME—Dr. A. Doubleday, Binghamton.  
 CAYUGA—J. M. Sherwood, Auburn; David Thomas, Aurora; Judge Hollister, Cato 4 Corners.  
 CHAUTAUGUE—T. B. Campbell, Westfield; Samuel A. Brown, Jamestown; Wm. Risley, Fredonia.  
 CHEMUNG—E. C. Frost, Catherine.  
 CLINTON—Edwin Benedict, Plattsburgh.  
 COLUMBIA—J. P. Beckman, Kinderhook; John S. Gould, Stockport; Abm. P. Holdridge, Austerlitz.  
 CORTLAND—Jedediah Barber, Homer; Dan. Hibbard, Cortland.  
 CHENANGO—Dr. Mitchell, Norwich; Isaac Foote, Smyrna.  
 CATTARAUGUS—Abraham Searl, Ellicottville.  
 DELAWARE—Cornelius R. Fitch, Delhi.  
 DUTCHESS—Thomas Swift, Amenia; Dudley B. Fuller, Hyde Park; J. W. Knevels, Fishkill.  
 ERIE—R. L. Allen, Buffalo; Augustus Raynor, Clarence; Ezra Chaffey, Boston.  
 GREENE—A. Van Bergen, Coxsackie; A. Marks, Durham.  
 HERKIMER—A. Loomis, Little Falls; A. L. Fish, Cedarville; Mr. Crane, Warren.  
 JEFFERSON—Charles E. Clarke, Albert P. Brayton, Watertown William Ives.  
 LIVINGSTON—Jas. S. Wadsworth, C. H. Bryan, Geneseo.  
 LEWIS—Ela Merriam, Turin.  
 MADISON—Geo. B. Rowe, Canastota; S. B. Burchard, Hamilton.  
 MONROE—R. Harmon, Jr. Wheatland; Thos. H. Hyatt, Rochester; Abel Baldwin, Clarkson.  
 MONTGOMERY—George Goertner; John Frey, Palatina.  
 NIAGARA—Wm. Parsons, Wm. A. Townsend, Lockport.  
 ORLEANS—Charles Lee, Barre; B. L. Bessar, Albion.  
 ORANGE—F. J. Betts, Newburgh; Robert Deniston, Salisbury Mills; J. W. Gott, Goshen.  
 ONONDAGA—Squire M. Brown, Elbridge; James M. Ellis, Onondago; Wm. Fuller, Skaneateles; Silas Chesebrough, De Witt.  
 ONEIDA—Elon Comstock, Rome; N. L. Wright, Vernon Center; Henry Rhodes, Trenton; H. B. Bartlett, Paris.  
 OSWEGO—H. E. Sanford, Volney; B. E. Bowen, Mexico; S. B. Ludlow, Oswego.  
 OTSEGO—Joseph Bennett; Henry Phinney, Cooperstown; K. H. Van Rensselaer, Butternuts.  
 QUEENS—A. G. Carll, Jericho.  
 RENSSELAER—Wm. P. Van Rensselaer, Bath; John J. Velle, Lansingburgh; Samuel Hoag, Nassau; Joseph Hastings, Brunswick.  
 RICHMOND—Dr. S. Akerly, Richmond.  
 SARATOGA—David Rogers, Corinth; Seth Whalen, Ballston, P. O.; Howell Gardner, Greenfield.  
 SCHENECTADY—Jedediah Miller, Cobleskill; Wm. Mann, Schoharie.  
 SENECA—John Delafield, Geneva P. O.; Samuel Williams, Waterloo.  
 SUFFOLK—John G. Floyd, Mastic.  
 TOMPKINS—L. A. Morrell, Lake Ridge; J. R. Speed, Caroline E. Mack, Ithaca.



TIOGA—G. J. Pumpelly, Owego; Chas. T. Johnson.  
 ULSTER—Lewis Bevier, Rochester, P. O.; Joseph Arnold, Kingston.

WASHINGTON—John McDonald, Salem; Asa Fitch, Jr.; Henry Holmes, Greenwich.

WESTCHESTER—Tyler Fountain, Peekskill.

WYOMING—James C. Ferris, Wyoming; A. W. Young, Warsaw.

MARCH 13.—At the meeting of the Executive Committee this day—present, Messrs. PRENTICE, MCINTYRE, HILLHOUSE, ENOS and TUCKER—Mr. PRENTICE, Vice Pres't, in the chair.

The Recording Secretary reported that he had received from F. ROTCH, Esq. the dies for Medals, ordered some time last year; together with samples of the Medals in gold, silver, gilt, bronze and metal—the account for which was audited and ordered paid. The design and execution of the medals were much admired.

A letter from L. F. ALLEN, Esq. on the subject of Premiums on Horses, was read, and its consideration deferred to a more full meeting of the Board.

A letter from Mr. ADAMS, relative to the Premium on Cornstalk Sugar, having been read, on motion of Mr. Tucker,

*Resolved*, That the offer of a premium for Cornstalk Sugar, be amended so as to read—"For the best 25 lbs. sugar, manufactured from the juice of the cornstalk, \$25—the premium not to be awarded, unless the samples offered, shall be deemed worthy of it."

The Committee on Diplomas were directed to have the Design for a Diploma, adopted at the December meeting, engraved on steel.

#### CULTIVATION OF FOREST TREES.

THE propagation of forest trees is becoming every year more important. In some sections they are wanted for ornament and shade, in others for wood and timber. There is a large portion of the western country, in which the natural destitution of timber constitutes a great obstacle to its cultivation—indeed, there are many districts which can never be much improved, until some substitute can be found for the forest. There is no reasonable doubt that those bleak prairies might, in the course of a few years, if proper care were used, be covered with various kinds of trees.

Of valuable kinds of trees which may be readily cultivated, there are the various species of maple, ash, oak, chestnut, walnut, pines, larch, &c.

In transplanting from the woods, it is not advisable to choose very large trees; we have found small ones preferable, as they more readily accommodate themselves to the change from a protected situation to the open air. *Evergreens* do best when transplanted in the fore part of the winter, when the ground is just so much frozen that the earth to the depth of six or eight inches will adhere to the roots, and by transferring them in this manner to their new location, there is much more certainty of their succeeding.

But the best mode of propagation is by seed. It is true, however, that a difficulty is often experienced in causing the seeds or nuts to vegetate. The principal cause of this difficulty, is owing to the nuts becoming too dry before they are put in the ground. The best course is, to plant them as soon as they fall from the tree. The seeds of the elm, and the white and red maples, (*Acer dasycarpum*, and *A. rubrum*,) fall early in the season. The blossoms put out before the leaves appear, and in this latitude the seeds generally fall before the middle of June. Attached to the pericarps or seed coverings, are thin fibrous appendages, (that of the maple bearing no small resemblance to the wing of an insect,) by which the wind disperses the seeds in different directions till they come in contact with earth or some object upon its surface, where, if circumstances are favorable, they vegetate. We have had some experience in rearing trees of these varieties. The seeds should be gathered as soon as they fall, and immediately planted. They may be sown as thick as we sow peas, in rows sixteen or eighteen inches apart, as they will occupy but little room the first year. The next spring they should be transplanted, in the same manner as apple-trees are, from the seed-bed.

The rock or sugar maple (*A. saccharinum*) does not drop its seeds as early as the white and red kinds do; they do not fall till autumn, and seldom, (perhaps never) vegetate till the succeeding spring. In the vicinity of old trees, the young ones may be found in great numbers, just as they appear above-ground, which is about the time the trees become full set with foliage. They may then be readily taken up with the spade and transplanted in the nursery. Care, however, should be taken to get, as far as possible, those young trees which have come up in the open air, as those taken from the shade will hardly bear exposure to the hot sun in their new location. Cattle and other animals greedily eat these young trees, and it is therefore not easy to find them, long after they first come up, in situations where stock range. But the best course with the sugar maple, is that recommended for the other kinds and for elms: that is, to gather the seeds as soon as they drop, and plant them in the seed-bed, where they will be sure to vegetate early the next spring. The seeds of the white ash and catalpa may be managed in the same way. If maples are planted in good moist soil, their growth is rapid. We have had them ten feet high in three years, from the seed.

Nuts of all kinds, the haws of thorns, &c., should be planted as soon as they fall from the tree, or else should be put immediately in boxes of moist earth, and there kept till spring.

The yellow and black locust are easily propagated from seed. They are of rapid growth, and when not attacked by insects, are highly valuable for timber. The pods containing the seeds are easily gathered when ripe, and the seeds may either be planted the same fall, or kept till spring. If they lay in the ground during winter, they will vegetate the next season. If the seeds are kept dry, they will retain their vegetating powers a long time; but if it is wished to have them come up soon, it is necessary, just as they are planted, to pour hot water on them, to soften the hard skins and allow the moisture to strike to the germ. The honey locust may be propagated in the same way as the other kinds, but is less valuable for timber, though we believe it is never attacked by the borer, and is sometimes recommended for hedges.

In some sections of the country, particularly in the eastern part of Massachusetts, we have noticed plantations of the white pine. The cultivation of the pine is a matter of much importance in those districts. In early times, lands were in many instances brought into cultivation there, which from their natural barrenness have long since ceased to produce crops that would pay the cost. These old fields, by a little attention, may be brought profitably into wood, and their unseemly nakedness and sterility changed for ornamental groves.

We believe the seed of the pine is usually sown broad-cast, in the cases we allude to; we are not, however, much acquainted with the mode pursued, but presume it is necessary to gather the cones containing the seed as soon as they fall, lest the seeds should be lost, or picked out and carried off by squirrels.

Will not some of our friends in the "old Colony," or elsewhere, give us the best mode of cultivating the pine and other forest trees on worn-out lands?

We would call attention to an able and very interesting article—by a correspondent from whom we hope to hear again—on the culture of the larch, in this number.

ONIONS.—The average yield of this crop (in the county of Essex, Mass.) is 300 bushels per acre; sometimes as high as 500 or 600 bushels. The ordinary expense of manure and labor to an acre may be estimated at double that required for Indian corn; this estimate is believed to be ample to cover all that will be requisite for a series of years, especially when it is taken into view that much of the labor of weeding and gardening may be done by children. For ten years past, from 30,000 to 60,000 bushels in a year have been raised in the single town of Danvers. The average value of the crop when brought to market, is fifty cents per bushel, or \$150 per acre. In what way can so fair a profit be realized from the land?—*Proctor's Address*.

## REWARD OF INDUSTRY AND SKILL.

Our correspondent "INDICATOR," gives some interesting facts in regard to the success of a man, who, under many discouragements, bought a farm of seventy four acres near Buffalo, about twelve years since. The man was an Englishman by birth, though he was not brought up to farming. At the time he bought the farm, it was thought so poor that while commencing operations, and making his garden, his neighbors told him he was throwing away his labor, for the land could not be made to produce anything. In purchasing and paying for the land he was forced to encounter serious difficulties and to forego many comforts. We are informed that he even had to trade away his watch to get a wagon, and his cloak or over-coat to get a part of a stack of hay, to feed his team upon before grass could be grown. But under all these discouraging hardships, he perseveringly continued his efforts, which have at last been crowned with success equal to his anticipations. "He harvests" (it is said) "as good crops as any one, and much better than many of those who are in possession of farms called the *best*." To the original seventy-four acres for which he had so hard a struggle to pay, he has added fifty more, giving him a farm of 124 acres, which we are told is all paid for, and that he has built on it one good frame barn, has cleared off the logs, stumps, and stones. His fences are said to be better than on most farms, and he is making experiments with live hedges. He has a flock of two hundred sheep, which it is said have been so much improved by a buck of the Leicestershire breed which he bought several years ago, that for three years in succession he has carried the first prizes for bucks of that kind, at the county show; and people come from a great distance to buy his young bucks. He has "nine head of cattle; a pair of fine stout mares; pigs and poultry; more and better tools than most farmers around him; with several hundred dollars out at interest!!"

"Indicator" informs us that his neighbor, besides doing all this, "has always kept his children at school, summer and winter."

In conclusion "Indicator" says—"I fancy I hear some incredulous one say—'You tell us how well your neighbor has done, but you do not tell us *how* he has done it?' I answer, he has been constantly industrious and careful, and has observed the maxim of Dr. Franklin, published in his "Poor Richard" almanac—"Always spend something less than thy clear gains!" Lastly, we are informed, that "he has for several years been a subscriber to the *Cultivator*."

## FAT ANIMALS.

WE noticed the carcasses of some remarkable cattle, sheep, and hogs, exhibited in the Centre Market in this city, on the 22d of February. There was the Durham ox, not quite six years old, which received the first premium on fat oxen at the Poughkeepsie State Show, bred and fattened by D. D. CAMPBELL, Esq., of Schenectady, which weighed as follows:

Live weight, .....	2,546 lbs.,
Beef—four quarters, .....	1,726 "
Hide, .....	121 "
Loose fat, .....	255 "

2,102 lbs.

A spayed heifer, between four and five years old, bred and fattened by P. N. RUST, of Syracuse, weighed—

Four quarters, .....	1,226 lbs.,
Hide, .....	84 "
Loose fat, .....	180 "

1,490

This remarkable animal was said to have descended on one side from some cattle imported from Holland, several years since, by Mr. Linklean, of Madison county; but her fine bone, symmetry, and color, strongly indicated a mixture of Durham and Devon blood. We believe that she had always been kept in the stable; and we would suggest the query, whether this circumstance

had any influence in lessening the weight of the hide? which it will be seen was of uncommon lightness.

Among the sheep, we noticed the carcass of a cross-bred South Down and Leicester wether, bred and fed by P. N. RUST; the neat weight of which was 183 lbs.—or over 45 lbs. per quarter.

All the above animals were exhibited at the stalls of KIRKPATRICK & Co.

At the stall of MCGUIGAN & WALSH, we observed the carcass of a Cotswold wether, weighing 172 lbs., fattened by Mr. KNICKERBACKER, of Schaghticoke. This was a most extraordinary carcass of mutton, exceeding anything we had before seen in weight, in proportion to bone.

But the greatest wonders and curiosities were in the Pork Department. Mr. G. SWARTZ exhibited the carcasses of three hogs—one of which, 2 years 7 months old, weighed 975 lbs! Another—of the Berkshire breed, a well-formed and symmetrical animal, 2 years 3 months old, 725 lbs. Another, ten months old, showing much China blood, 400 lbs., as perfect a pig as could well be imagined. The largest hog was said to be of the "Byfield breed," but it is evident that the blood of some larger and coarser breed must have predominated.

It may be interesting to compare the weights of these animals with some which have carried prizes at shows in England. The London Farmers' Journal gives the weights of some of the prize oxen, sheep, and pigs, which were exhibited at the last Smithfield Show. Of the cattle, the weight of the beef and loose fat or tallow only is given. A four yrs. old Durham ox—

Quarters, .....	1,768
Loose fat, .....	192
	1,960

A four years old Hereford ox—

Quarters, .....	1,590
Loose fat, .....	192
	1,782

Another Durham ox four years old, weighed—

Quarters, only— .....	1,840 lbs.
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The weight of Mr. Campbell's ox—compared with these—that is, the beef and tallow only—was 1,981 lbs.—but there was a difference of near two years in his favor.

The weights of no Cotswold or other long-wooled sheep are mentioned. A South Down wether, bred by the Duke of Bedford, weighed 172 lbs—or 43 pounds per quarter.

## WHEAT CULTURE.

Mr. W. ORCUM of Maryland, after proposing some inquiries in regard to the best mode of manuring the land for wheat, gives the following as his own management: "My plan has been to break my fallow fields before harvest; stir it after harvest; spread manure, and harrow it, then sow two bushels of wheat per acre, then harrow and cross harrow. I use three horse plows and three horse harrows, and plow about ten inches deep. Some farmers spread the manure first, and plow it in, and use the shovel plow to put the wheat in. I have tried this plan, but prefer the other. As to my pasture fields, I sow in March or April, 1½ bushels ground plaster per acre. Some persons consider so large a quantity injurious to the land; but I have never found it so. But on the contrary, my clover crops have been remarkably fine, and I have attributed it entirely to the plaster. In the spring of 1843, I sowed in "a 35 acre field," 1½ bushels plaster per acre, (which had been pastured for two years.) In the summer of 1843, it was pastured again, and after harvest, I had it broken up with a three horse plow, spread manure and harrowed it; sowed 69½ bushels wheat, which was harrowed and cross harrowed. This was seeded Sept. 28, 1843, and harvested July 1st and 2d, 1844. The wheat weighed 63½ lbs. per bushel, and I think there was from 27 to 30 bushels per acre. Whereas, in a field of 85 acres, I pursued the other plan. I did not sow any plaster, but manured with barn yard manure, spreading it before plowing, and plowing it under. I had the



wheat put in with shovel plows; and although the soil was better, it did not produce more than 20 bushels per acre. I should like to have the opinion of others upon the subject."

#### HEATING CONSERVATORIES BY HOT WATER.

We visited in February last, the the neatly-managed conservatory of Mr. JAMES WILSON, near this city. Among other objects of interest, we particularly noticed a mode of heating hot-houses by hot water. A boiler is placed at one end of the room, and a copper pipe, four inches in diameter, is inserted in it; carried from thence around one side of the building, connecting at the farther end with a vat or reservoir. From this reservoir another pipe of the same size as the first, is carried back to the boiler, and inserted into it about six or eight inches above the other. The two pipes are placed vertically to each other, observing the same distance between them as at their connexion with the boiler. As the water in the boiler is heated, it rises, the colder water of the pipe flows in at the lower insertion, giving place to the warmer, which flows out at the uppermost insertion, thus keeping up a regular circulation till the whole is heated. The smoke-flue is carried round the room in the same manner as formerly; thus using to the best advantage, all the heat which is generated by the fire.

The largest of Mr. Wilson's houses is heated by one of these boilers with the pipes as described. The house is forty-three by twenty-seven feet, and 15½ feet high, with span roof, both sides of which are of glass. Two boilers, each with pipes, were first provided, but one has been found amply sufficient, even in the coldest weather of the past winter. The cost of the two was \$150, but as one has proved to answer, the whole cost of the necessary apparatus for heating the house is actually only \$75.

#### COMPOSITION OF SALERATUS—CURING MEAT.

We have received a long communication from "C. D." (on which fifty cents postage was charged us,) whose object is to show that saleratus consists largely of *sulphate of potash*, with bi-carbonate of potash. He quotes Thatcher's Dispensatory, who states that pearlash, (the basis of saleratus,) contains "a considerable proportion of foreign salts," which C. D. affirms are almost entirely *sulphate of potash*, as may be seen from his prescription for purifying them—by driving off the sulphuric acid by the heat of a crucible.\* Now it happens that sulphate of potash, according to chemists, decrepitates, but is not decomposed by heat. Hence this reasoning fails. He also says, so large is the proportion of sulphate of potash, that "the *potash maker* invariably uses *lime* to clarify his ley from the sulphuric acid." Now, it happens again, that sulphuric acid has a stronger affinity for potash than for lime; hence lime cannot decompose it. And hence, too, this reasoning fails. Our correspondent must excuse us for not publishing his reasoning at length, as a few accurate analyses of saleratus, which, so far as the presence of the sulphate is concerned, is one of the simplest operations in chemistry,\* will settle all disputed points much better than any abstract reasoning.

Most of the cases which C. D. gives of the supposed efficacy of sulphate of potash in curing meat, are from the use of the mixture of common salt and wood ashes, the latter being supposed to consist largely of sulphate of potash. Admitting this to be so, the use of salt at the same time destroys the distinctive result of the experiment. But one experiment related is of a different character, which is as follows:—"Twenty-five years ago I had a quantity of pure sulphate of potash; I gave some to a friend, who cured his hams with it to his most perfect satisfaction. It imparts to them as much tenderness, and the same redish appearance which saltpetre does. In fine, the sulphate of potash has, in curing meat, all the good effects that saltpetre has, without its bad ones." [resulting from the poisonous nature of saltpetre.]

**HUMAN BLOOD.**—Iron is found in venous blood alone, and no where else in the human body.

\* See Draper's Kane, p. 459; and Macnevin's Brande, p. 339.

#### ANSWERS TO INQUIRIES.

**STRING HALT.**—A "SUBSCRIBER" at Shoreham, Vt., inquires whether there is such a disease as "Spring halt." We presume the disease in question, is what is described in British works, as *string halt*. It exhibits itself in an involuntary twitching of the hind leg. Mr. Youatt says it is evidently an affection of some of the nerves which communicate motion to the muscles of the leg. "It is," says Mr. Y., "an irregular action of nervous energy; but what particular fibril is affected, or what muscle is chiefly spasmed, has never been ascertained. It is principally observed when the horse first comes from the stable, and gradually ceases after he has been exercised awhile." Mr. Y. observes that "the precise nature of the defect has never been determined, nor has any cure for it been discovered."

**POMEGRANATE MELONS.**—MESSRS. GIBSON & RICHIE, Seedsmen, Newark, N. J., in a *late letter*, say—"In your January number 'W. of Troy,' inquires 'whether there is a species of the Muskmelon, called Pomegranate.' There is. It is about the size of a goose's egg, but more oval, and is worthless as a table fruit. It has, however, a most exquisite perfume, and one placed in a room, scents the whole air like a collection of the finest fruits. We never heard of the Citron Watermelon being used for any thing but preserves."

**TOBACCO.**—In answer to the inquiry of Mr. YOUNG, of Fallstown, North Carolina, we cannot at this time do better than to refer to an article on the culture of tobacco published in our last volume, page 84.

We cannot answer the inquiries of "Indicator" in regard to Wiard's Gang-Plow. He had better address Mr. Wiard, at East-Avon, N. Y.

"HOW MUCH IS A 'LOAD' OF MANURE?"—A friend at the south asks us this question, and though it is a perfectly proper one, it is rather hard to answer. The term "load," is probably about as indefinite as "a piece of chalk." The officers of the Mass. Ag. Society, in using the term "load of manure," in connexion with some of their premiums, explain it as "meaning not less than 30 bushels." Perhaps this quantity (30 bushels,) may be considered as good a criterion as can be given of what is commonly understood by the word load when applied to manure in this section. Our correspondent suggests that it would be a great convenience to express by bushels, what is always meant by loads. We recommend the suggestion, being satisfied that it would effect an important improvement.

**SOUTH DOWN SHEEP.**—In regard to the value of the South Down breed of sheep "compared with the Merino and Bakewell," about which Mr. Boyd inquires, all depends on the purpose for which the sheep are wanted. The flavor of the South Down mutton is considered very superior—the wool of medium quality, for short wool—average three to four pounds per fleece. The Bakewells or Leicesters, fatten very easily, and at an earlier age than others—wool suitable for combing or the manufacture of worsteds—average four to six pounds per fleece. The South Downs are considered more hardy than the Leicesters and Merinos. The South Downs can be bought of Messrs. Bement or McIntyre of this city, of Messrs. S. & J. Wait, Orange county. We do not know of any Bakewells or Leicesters for sale, that are unmixed with the Cotswold, and it is the impression here, we believe, that they are benefited by the cross. The Cotswolds, or crosses of these and the Leicesters, may be had of Messrs. Corning & Sotham, McIntyre, Merrifield, and Dunn. The prices are from \$12 to \$30 per head, according to quality.

**WM. BATTAILE, Esq.** of Benton, Miss., asks what grasses are best adapted to his section of country, and whether clover would succeed there. Not being personally acquainted with that region, we beg to refer our correspondent to our friend Mr. AFFLECK, of Washington, Miss., who is in all respects well qualified to give the information desired. As to corn sown broadcast for fodder, we should think it would do well. The usual time of planting, is proper for putting in the crop for this purpose. From two to three bushels seed are here used per

acre, and it may be worked in with a cultivator, or what is better, turned in with a small plow. Some prefer planting it thick in drills, about three feet apart, in order to give a chance of working among it and keeping down the weeds and grass. The growth is thus made more rapid, and some who practice it, assure us that the yield is as great, and on some soils greater than when sown broadcast. The best mode of curing, we think, is to cut it shortly after the blossoms fall, bind in small bundles close to the top, and set in small stooks or shocks, as open as possible at the butts, and so tight at the top as to turn off the rain. Let them remain in this situation till thoroughly dried, when they may be removed to large ricks, or put in a barn. As to the cheapest and best means of improving lands in Mississippi, stopping "washes," &c. we would refer to Mr. Affleck or to Dr. Phillips. Without a knowledge of the facilities for improvement, it is impossible for us to say what course would be cheapest or most expedient. The gullies or "washes," may be stopped by throwing in small stones, brush, or small trees with the limbs on, and covering over with earth, taking care to prevent as much as possible, the water from entering into the old channels.

**SPENT TAN AND SAW-DUST.**—In regard to the inquiry of Mr. ANDREW BUSH, Coventry, Pa., we remark that tan has been found useful as manure, particularly for trees and shrubbery, after it has become well decomposed. It is also sometimes used in a fresher state, to keep up the heat in hot beds. Saw-dust has been found very useful in ameliorating heavy or clayey soils. It makes also good bedding for horses or cattle, and when put in their stalls, is a convenient absorbent of urine.

**WINDMILL.**—MR. WILLIAM WADSWORTH of Middlesex county, Conn., inquires for a windmill that would be effective for threshing, sawing, &c. In our last volume page 202, we noticed a model of a windmill invented by George Parker, of Corinna, Penobscot county, Maine, which we thought simple and cheap. Further information in regard to it, we presume could be had by addressing Mr. Parker.

**MANGEL WURTZEL.**—H. BOYD, Wilkesburgh, Pa., asks some information in regard to mangel wurtzel. The best soil for this root, is a rich light loam. The usual time for planting corn may be taken as proper for planting this crop. It is frequently sown on ridges, two to three feet apart, and thinned to a foot or more in the row. If the soil is likely to suffer from drouth, it is best not to ridge it. The roots may be fed, cut in proper slices, to milch cows, at the rate of half a bushel to a bushel per day, being careful to allow plenty of hay or other dry fodder, lest the roots too much relax the cows.

**VIRGINIA LANDS, &c.**—A correspondent, signing "FRANKLIN," Washington, D. C., inquires for a remedy against the worm that eats the ends of the ears of green corn, or "roasting ears." He describes the worm as of a "green or grey color, from half an inch to two inches long." He says they frequently eat down the whole length of the ear—that "upon examination, there will generally be found a little hole perforating the husk, through which the worm made its ingress, or where the husk was punctured by a bee or insect for the purpose of laying an egg for producing the worm."

"Franklin" thinks more of the Northern hard-working farmers, with small means, might go to Virginia to their advantage. Land, which only requires good management to produce abundant crops, he says, can be had in Fairfax county, or on the Baltimore and Washington railroad, for from \$10 to \$30 per acre, according to the quality, situation, buildings, &c. In regard to the state of society, he observes—

"In Virginia, the New Englander will find the richer class of farmers more open-hearted, more courteous and polished in manners; and the poorer class more ignorant, and more coarse in all respects, than those he left. He will find less schools, less churches, and lose something of the quietude of the Sabbath; while in these respects, he will probably be better off, than by removing to the West."

Our correspondent at West Greenfield, "H. G." will find our views, together with the views of some others, on the subject about which he inquires, in this paper.

## POTATOE ROT

We give the following from a letter from Hon. JOHN CRARY, of Salem, in this State. His suggestions are worthy the consideration of our farmers:

"THE CAUSE OF ROT IN THE POTATOE, AND THE WAY TO PREVENT IT.—The rot in the potatoe occurs in hot, dry seasons, and the heat and drouth prevent the ripening of the potatoe, and disease and decomposition follows. I observed during the last summer a difference in the potatoe crop, on the same land. Those potatoes that were covered deep were good as usual; those the covering of which was shallow were useless, particularly for the table. The first symptom of failure is in the stalks of the potatoe; they become dry and the leaves turn black, the growth then ceases, and the potatoe becomes rotten before it is ripe. The fibers that connect the stalk with the potatoe quit their hold, and when you grasp the stalk and pull with a view to raise the potatoes out of the hill, the roots break and leave the potatoes, or rather slip out of the hill without raising the potatoes."

MR. LEROY PATILLO, Monroe, Georgia, writes us that he thinks the rot is caused by small insects, and advises rolling the seed-potatoes in sulphur before planting them. He informs us that he has used sulphur with good effects around plum trees in which insects had perforated the bark, and from which the gum oozed out.

FROM a letter received from ELISHA HAMMOND, of Conesville, N. Y., we extract the following facts in relation to the rot in potatoes. 1. "On dry, cool land, not very rich by putrescent manures, the crops almost entirely escaped." 2. Defective potatoes fed to hogs, in connexion with sulphur and charcoal, have produced no injury. 3. In a field of potatoes, some of the rows crossed places on which stumps had been burned, and other rows a spot where potatoes had been buried the year before, and the straw used about them turned under for manure. The crop was much more rotted on these places, especially over old potatoe-holes, than elsewhere. 4. Lime has been said to be a preventive of rot. It proved *not* so in this case. Some coarse lime had been spread on a part of the field. Some hills, where the lime happened to be scattered, were particularly examined, and found much more rotted than where nothing was put. 5. Plaster was used on most of the crop. Two rows were left through the field without plaster—no difference could be discovered between these and other rows, in the condition of the potatoes.

## EXPERIMENTS IN THE USE OF POUDRETTE.

MR. TUCKER—I send you the following practical facts in relation to concentrated manures; a subject which is now commanding very general attention. I have selected these reports from distant parts of the country, that it may be seen that their effects are alike beneficial on different soils, and in somewhat different climates.

The first statement is an extract from a letter written by Augustus Shriver, Esq., of Carroll county, Md., dated November 22, 1844.

"I therefore mixed the poudrette with an equal quantity of ashes, and a little plaster, and when the corn was cleverly up, applied about a gill to each hill, leaving twelve rows in the field, to which I gave the same quantity of ashes and plaster *alone*, as has heretofore been my custom. The corn all grew finely, and there was no perceptible difference in that on which the poudrette had been applied, until the month of July, when we experienced a very severe drouth, lasting about six weeks, when the part dressed with ashes and plaster alone suffered somewhat and "fired" a little; but the balance on which I put the poudrette, held its own admirably, and did not "fire" a single blade, and looked flourishing and filled finely. I candidly believe that the poudrette, though so small a quantity, increased the yield at least ten per cent, and am so well pleased with this small experiment, that I will go into it on a larger scale next season."

The next report is from Mr. Floyd Howell, residing in the county of Onondaga, in this State—to whom nineteen barrels, or 76 bushels, were sent late in November



1843; upon which a freight of \$1.37 per barrel was charged, which increased its cost to \$2.87 a barrel on the farm. In reply to inquiries made in relation to its effects, the following answer is given, viz.:

"We took five acres of wheat-stubble which we supposed would yield, *without any manure*, from 35 to 40 bushels of corn to the acre; plowed and harrowed it once, the fore-part of May; then marked it out in rows four feet apart, but owing to the cold weather, did not plant until about the 16th of the month, when we dropped a handful of poudrette in each hill—or 14 barrels to the five acres—then planted it. After it came up, and before the first hoeing, we put 4 barrels more upon about one half of the field. The corn was hoed three times—and was ready to harvest a little earlier than our neighbors—but we could not perceive any material difference between that part of the field where the four barrels were applied as a top dressing, and the part where it was applied only on the hill. There was no other manure used than the poudrette. The average yield upon the five acres, was 80 bushels to the acre; but from one acre selected, we gathered 99 bushels and 18 pounds. The freight on the 40 barrels sent by you this year, will not exceed what was paid last year, \$26 on 19 barrels, owing to its being shipped near the close of navigation."

From this it will be seen that, by the use of 18 barrels of 72 bushels of poudrette on the five acres, the yield was increased from 35 or 40 bushels, to eighty bushels, per acre, or over 200 bushels on the field.

Mr. Robert Henry, of Cranbury, N. J., says, under the date of Dec. 27th, 1844, that—

"For the last four or five years I have used poudrette with uniform success, on corn; and find it to answer on that crop, better than any other manure that I use. The corn, where it is used, is generally of a better color, and comes to maturity earlier, than where other manure is used. My mode of applying it, is in the hill; the ground being previously prepared with about 40 or 50 bushels of lime to the acre. This is the only way in which I have used it; and last season the corn was on a dry soil—although the season was also dry—the crop of corn was good, where poudrette was used. I consider it a cheap and profitable manure."

Mr. Peter Hall, of Norwalk, Conn., informs me that he "used poudrette in the fall of 1842, with barn-yard manure, on a field of wheat. The result was extraordinary—yielding thirty-two and a half bushels weighing over 64 lbs. per bushel—to the acre. He also used it on corn the past year, 32 bushels, or 8 barrels, per acre. Part of it was put in the hill at planting, and the balance was spread on the surface previous to the second hoeing.

The corn was planted a week later than his neighbors planted theirs, and was fit to harvest nearly two weeks earlier; and it was believed from the appearance, the produce was greater than upon any other field in the neighborhood.

On potatoes, also, its effects were remarked by every one who saw them. Those manured with poudrette could be distinguished from those treated with stable manure, as they passed along the road; and on digging them, very few, if any, were found diseased."

The poudrette used by the gentleman whose reports are herewith given, was obtained from the NEW YORK POUURETTE COMPANY, and prepared in this city, by

New York, February, 1845.

D. K. MINOR.

**CEMENT FOR EARTHEN PIPES.**—A mode of cementing earthen pipes for conveying hot water, is given by a correspondent of the London Gardener's Chronicle, as follows: Take one pint of sweet milk, nearly two pints of buttermilk, mix the milks, and put them on a slow fire till they turn into curd; then strain them and save the curds. Previously get some good roche lime, pound it fine, and sift through a fine sieve. Mix the lime with the curd well, until it is tough, and then dilute the joints of the pipe well with it; the pipes should be dry when the cement is applied. It will be sufficiently hard in a few hours, and it is said will not be affected by hot water. More cement than can be used in half an hour ought not to be made at a time, as it will get so hard as to be unfit for use.

#### CONDENSED CORRESPONDENCE.

**HORTICULTURAL ITEMS.**—MR. CHAS. HAMILTON, of Canterbury informs us that Rhode Island greening tree in that village, produced in 1843, twenty barrels of apples—that two trees, of which this is one, have for several seasons, produced twenty-two to twenty-three barrels suitable for market, besides what previously fell off. Mr. H. also informs us that the fruit of a single apricot tree, belonging to William T. Titus, of that village, sold in August last, for \$12.55—being one cent each. The fruit of another tree belonging to Delaplain Gaunt, brought \$17.

**Strings for tying buds, &c.**—Mr. Hamilton gives the following directions for preparing the bark of the Bass, or Linn tree, for this purpose—"About the 20th of June, cut the bark in strips about four feet long, which will make three lengths. Tie it up in bundles, and place it in clear running water, with stones on it to keep it down. In about four weeks, from six to ten courses of the inside bark will readily strip up finely. Having taken off this, put the rest back, and in three or four weeks more, it will again peel. The finest may be used for budding trees, and the coarser for tying trees to stakes, &c. The bark may be taken from the trees whenever they will peel."

In regard to the "small brownish worm," which Mr. Hamilton speaks of having eaten the buds from his plum trees, we know nothing, and without seeing the insect, or obtaining a more definite description, we can give no information in regard to it.

**PROPER DEPTH OF COVERING FOR PEAS.**—"Indicator" gives the result of an experiment which throws some light on this point. He plowed in some peas with a wheel attached to the plow, so regulated that the furrow was only three inches deep. Just before he had done plowing, the wheel came off, which permitted the plow to run the usual depth. He noticed that where he plowed after the wheel came off, the peas did not come up well—in some instances there would be a space of several yards without any.

**CORRECTION—PREPARATION OF MUCK.**—In our notice of Mr. Camp's method of improving land, in the February number, it seems we made a mistake in substituting the word "if" for "of." Thus in the preparation of peat or muck, Mr. Camp is made to say he would advise mixing one bushel of lime, two bushels of ashes, four bushels of crushed charcoal, &c., with one load of peat; whereas it was only intended to recommend one of these articles in the quantity mentioned, instead of the whole of them. Mr. Camp says he does not suppose that all these ingredients would "hurt a load of muck," but it was his aim to direct to a cheap, as well as good mode of improvement; and he thinks "if the peat or muck be thrown from the bed and well frozen through the winter the quantity mentioned of either of these ingredients will serve as corrective for one load." In the note just received from Mr. Camp, he speaks of the use of "charred cobs" as follows:—"I have, for years made use of charred cobs and find them to be one of the best absorbents, drinking in the dews and other liquids, and disposing of them to the great benefit of plants. If I have oyster shells which I wish to char, I place a thick coat over the cobs, then cover well with dirt; this holds the gas while burning, and is a benefit to the whole. My kilns have generally been made partly of wood."

**AGRICULTURAL PAPERS.**—The following extract from a letter received from a correspondent at East Hartford, Conn., sufficiently explains itself, and needs no comment: "In perusing the December number of the Cultivator, I saw a notice requesting subscribers to act as agents, and being desirous to extend the circulation of so valuable a paper, I called on one of my neighbors and asked him to subscribe. He said 'no, I cannot afford it—I've purchased five hundred dollars worth of land this year, and every cent counts.' Now if this man had spent his five hundred dollars in enriching what land he already had, I think he would have been better off. I next called on another neighbor, and while showing him the size and quantity of reading matter in a number, I heard a voice

from another room, which I supposed to be that of the good (?) housewife, saying 'if a farmer can't take care of his business without an agricultural paper to tell him how, I think he had better give up.' Now this man takes so good 'care of his business,' that he loses half a dozen creatures of some kind or other, in the course of a year. But enough of this. I have obtained several subscribers to your paper."

**HEAVES IN HORSES.**—'A. S.,' Lebanon, Cobb county, Georgia, gives us some remarks on heaves in horses. The article which he speaks of having seen in a "miscellaneous newspaper, credited to the Cultivator," we cannot find, though it may have been in some of our preceding volumes.

"A. S." thinks the heaves are usually brought on, in his section of the country, by confining the horses too much on bulky food, such as corn-blades, (cured leaves,) straw, &c., and, especially feeding these articles in a musty, or badly cured state. After having had much experience in feeding horses, he has adopted the following rule, which we quote in his own words:

"My rule is now, for every 24 hours, according to work, from 6 to ten quarts of corn, as near as we can come to it, on the cob, and never more than four sheaves of fodder, averaging 2 lbs. each; and when I am preparing for, or on a journey, on which I expect to drive rapidly, I come down to about four pounds of fodder in 24 hours, and as much corn as the horse can eat clean; and I am not afraid of watering, directly from the plow, on the hottest day, or putting to his feed as soon as I stop on a journey."

"A COUNTRY TYPO," says—"One of your correspondents in your January number, complaining of the neglect of farmer's interests, asserts that they meet too little attention and support from the country press. No doubt the local papers are too much engrossed by politics—but if politicians only support the paper, the editor must be expected to devote himself chiefly to their service. Does your correspondent himself take and pay for a country paper? and do his farming neighbors generally do the same by their local press? If not, he has no cause of complaint. It will be time enough for that when the editor proves unfaithful to the great mass of his patrons and neglectful of their interests. The truth is, that farmers are to blame for not supporting the country press. Let every man who owns a farm, subscribe and pay for the nearest journal, and they will soon have newspapers able and ready to furnish matter to their tastes, and advocate their interests."

**NECESSITY FOR INQUIRY.**—Extract from a letter received from A. WILTSE, Esq. Adamsville:—"The farmer has more need than ever, (under the present times,) to ascertain the best means of enriching his soil—the nature and adaptation of the different manures to the different soils—the extent to which labor saving machines can be introduced into his business. In short, to learn how to produce the most and best of every thing, with the least possible expense or labor. How mistaken are farmers in their notions of policy and pretended economy! There are thousands of farmers that might get some useful hints to store their minds with, these long winter evenings, if they would take an agricultural paper. Knowledge, if put in practice, would be a benefit to them in after life, and would increase their power and means of success."

**WAGES IN DERBYSHIRE IN THE 14TH CENTURY.**—It is sometimes thought that the condition of the laboring classes in England, is worse in modern times, than it formerly was. The following, which we copy from a late English paper, seems to teach a different view of the case:—"By an act, called the Statute of Labourers, 25th Edw. III., passed in 1351, it is provided, 'That no carter, plowman, day or other servants, shall take in the time of sowing, or hay-making, but a penny the day; and mowers of meadows for the acre five pence, or by the day fivepence; and reapers of corn in the first week of Aug 23d, twopence, and the second threepence, and so till the end of August; and less in the country where less was wont to be given, without meat or drink or other酬劳.'"—

## NEW PUBLICATIONS.

**REPORT OF THE COMMISSIONER OF PATENTS.**—We are indebted to Hon. H. L. ELLSWORTH, for a copy of his annual report for the year 1844. The statistical information embraced in this document is varied and extensive; but we have not yet had an opportunity of making a thorough examination of all the articles. From the tabular estimate of the crops for the last year, we gather the following in regard to the total products of the U. States. Whole number of bushels of wheat, 95,607,000; barley, 3,627,000; oats, 172,247,000; rye, 26,450,000; buckwheat, 9,071,000; Indian corn, 421,953,000; potatoes, 99,493,000; hay, (tons,) 17,715,000; flax and hemp, (tons,) 22,800; tobacco, (pounds,) 151,705,000; cotton, 872,107,000; rice, 111,759,000; silk, 396,790; sugar, 201,107,000. We find no estimate of the amount of wool produced last year.

Among the discoveries of the age, the Commissioner mentions the electro-magnetic telegraph, as one of the most brilliant—an invention which he thinks is destined, by the rapidity of transmitting intelligence, to essentially affect the welfare of society.

In regard to the progress of agriculture, it is observed that it has now become a science and study—that "worn out lands that have been as it were, abandoned, are now being reclaimed under scientific treatment. Guess-work and hereditary notions are yielding to analysis, and the application of chemical principles. \* \* \* The prejudice against book-farming, is happily more and more passing away, though there is still too much of it remaining; but compared with some twenty years back, there is a vast deal more information of this kind possessed, than formerly. The consequence is, that as information is more diffused, the minds of the farmers are set in action. Many become contributors to the agricultural journals; and the value of these latter is much heightened by the increased practical bearing they assume, and the extent and variety derived from these sources. A comparison of these papers at the present day, with those published some twenty years since, will show how the science and art of agriculture have advanced in this period."

In regard to *corn-stalk sugar*, the Commissioner observes, "there is every reason to believe that all the difficulties in making good sugar from this vegetable, will be removed," &c.

Among other valuable articles in the appendix to the report, is a communication from Dr. Jackson giving the results of an analysis of several varieties of Indian corn and other grains. The different constituents of the several kinds is quite surprising—some containing a much larger proportion of oil than others. The subject is well worthy of attention, as it has been long known that there is a great difference in the fattening tendency of different kinds of corn.

**MEDICO-CHIRURGICAL REVIEW.**—This is unquestionably the most valuable journal of Medicine and Surgery published in this country, and for those belonging to the faculty, we should suppose it must be of great service; indeed, every one whose taste inclines them to study such subjects, could not fail to be benefitted by its perusal. In the number for January, now before us, the publishers inform us that arrangements have been completed, to give their journal a development, that has not been attempted by any journal in Great Britain or elsewhere. "Each number," say they, "will contain three hundred pages of closely printed *Critical Analysis* of all the best works, foreign and domestic; forming a quarterly library of progressive practical Medicine and Surgery. By this arrangement, the profession in this country will be put in possession of the best parts of most of the works on Medicine, and the collateral branches, issuing from the European presses."

Published quarterly, by R. & G. S. WOOD, 261 Pearl-street, New York. Terms, \$5 per annum, in advance.

**STILL ANOTHER.**—We have received the *ARKANSAS FARMER*, published by J. GISH, at Little Rock, Arkansas, monthly, at one dollar a year. We trust it will be an aid in advancing agriculture in that quarter.



## SHEEP IN OHIO.

It is computed that the capital invested in sheep-husbandry in the State of Ohio, is \$12,000,000—the number of sheep in 1844, being 3,000,000, requiring 600,000 acres of land for their support. Great numbers of sheep have been slaughtered in this State during the last year. Besides the number killed for market, and domestic use, which is estimated at 200,000, it is stated that there were slaughtered for the pelts, hams and tallow alone, during the last season, at Cleveland, Columbus, Zanesville, and other places, 100,000—making the whole number killed in the State last year, 300,000.

If this statement is correct, and Ohio has furnished her quota of the number of sheep sent during the past year to Illinois, Wisconsin, Iowa, &c., we presume the natural increase would not be equal to the number exported and killed, and that there is a less number now in that State than there was a year ago.

According to the returns for 1840, the number of sheep in the United States was 19,311,374, and the whole amount of their wool, 35,802,114—giving an average of less than two pounds to each sheep. The average weight of fleeces in England, is over four pounds. The increased weight is to be attributed to the improvement of their breeds, and to superior attention and care in sheep-husbandry.

## CHEAP MODE OF REARING HOGS.

The Maine Farmer contains an account of the mode in which Mr. True Remick raised six hogs, which is worthy of attention. It is stated that the pigs were farrowed in May or June, 1843. Four of them belonged to one litter, and the others to two other litters. The first summer they were kept in a close pen, and fed with skimmed milk and boiled potatoes. In the fall they had a run of an acre of pasture ground, and through the succeeding winter they were kept entirely on boiled potatoes. On the first of May last they were turned into the cow-pasture, with rings in their noses. While running in the pasture they had forty bushels of raw potatoes given them, but had no other food till put up to fat. Two of the sows raised pigs—eleven in all. The last of September they were put up, and fed with boiled potatoes and a little milk, but nothing more. The long, red potatoes were the kind used, and it is well known that swine are much more fond of these than any others. The hogs were killed from the 6th to the 28th January last, and their average weight, dressed, 398 pounds—the largest weighed 513 pounds. The account states that the whole six never ate so much as three bushels of meal of any kind. If this account should come to the ears of some of the French chemists and physiologists, what would they afterwards say about there being none of the fat-forming elements in potatoes?

## DEFICIENCY IN THE SUPPLY OF PORK FOR 1844.

We are not surprised at the falling off in the amount of pork slaughtered in the west last season. From 1838 to 1841, it is well known that an excitement, amounting almost to a *mania*, prevailed through the country in relation to hogs. Improved breeds were sought after with great avidity, and in many instances very high prices were paid, particularly for Berkshires. The natural consequence of this excitement was, first, that unusual numbers of hogs were reared and fattened, and of course the pork-market was glutted. The unprecedentedly low prices of pork in the western markets for the years 1841 to '43, proved almost ruinous to those farmers who relied on that article for their chief income. Many farmers were forced to sell their hogs for no more than a dollar and fifty cents per hundred, "dead weight," and in some instances for less. They could not stand such low prices, and hence followed the second result of the former excitement, viz: the raising of but a small number of hogs, and the falling off in the quantity of pork killed in the western country last year. We see it stated in various papers that the amount packed at Cincinnati last year was less by one-third than for the year previous.

At St. Louis, it is said, the decrease is still greater; and through the State of Illinois there is said to have been a falling off of from one-third to one-half. In Ohio the falling off was much greater, as we are informed, at the interior slaughtering places, than at Cincinnati. In the Scioto valley, for instance, where the number slaughtered at nine places, in 1843, was 121,800, the number for 1844 is only 48,350.

It seems probable, from present prospects, that pork will command, at least, remunerating prices the coming fall, and those farmers who had the foresight to see this, and have wisely provided themselves with a sufficient stock of a good breed of hogs, will be likely to reap their reward.

UNION (CONN.) AG. SOCIETY.—GOOD COWS.—We have before us a copy of the report of the Executive Committee of this Society, for the last year. It contains many interesting facts. The committee state that there were at the last exhibition, 104 *valley* of oxen, which competed for the several awards. In reference to them, the committee say—"The exhibition was certainly creditable to their owners, from the appearance and ready obedience to the word of their driver, without a resort to the cruel infliction of the lash." Among the cows exhibited, there were two very highly commended. One of these, a heifer of two years of age, five months in milk with ordinary grass feed alone, produced 13 lbs. butter from October 9 to 15th inclusive, besides affording to the family 3 pints of new milk per day—the other a 6 year old cow, two months in milk, with grass feed alone, produced in seven days in the month of October 11½ lbs. of butter; in the month of September, the same cow produced 8 lbs. 6 oz. in four days in better feed.

Of horses, the committee speak highly of one, as a farm horse, owned by J. N. Blakeslee, of Watertown. Mr. Blakeslee's Merino sheep are likewise spoken of as a valuable stock. In the department of Farm Products, Butter and Cheese, and Domestic Manufactures, are spoken of as highly creditable and encouraging.

OSAGE ORANGE.—This tree is found wild in Mississippi, Arkansas, &c., where it is said to attain the height of 20 to 25 feet. It has lately received considerable attention as a plant for hedges. It readily adapts itself to the climate of the middle and eastern States, and though not growing so large as in its natural location, it is one of our most beautiful ornamental shrubs. The American Farmer's Encyclopedia gives the following description of it: "It is very branching; each branch being armed with numerous sharp thorns. The wood is remarkably tough and solid. The male and female flowers are on separate trees. The fertile, or female tree, bears fruit abundantly in a very few years. These are round, rough, and greenish-colored, resembling somewhat an orange, and weighing from 12 to 18 ounces, containing from 100 to 250 seeds." The wood is said to be very elastic, being preferred for bows by the Indians to any other. The tree is said to be readily propagated from seed, and its growth is so rapid that it will make a very good hedge in from three to five years.

NUMBER OF KERNELS IN A BUSHEL OF GRAIN, &c.—Our friend HOLMES, of the Maine Farmer, says it has been ascertained by actual counting, that a bushel of

Wheat, weighing 62 lbs. contained	550,000	ker'ls.
Barley, " 52½ "	520,000	"
Oats, " 32 "	1,200,000	"
Eng. Horse-Beans, 64 "	87,000	"
Poplar Pea, (Eng.) 64 "	110,000	"

Dr. Holmes suggests that if we were sure that every kernel of wheat which we put into the earth would grow and come to maturity, we could so place them that a small portion of a bushel would be sufficient to plant it. Taking 42,360 square feet for an acre, and dividing each foot into four compartments, and placing a kernel of wheat in the centre of each, Dr. H. says the acre will only require *four-fifths* of a bushel. This is, in effect, the dibbling system of England; and where land is dear and labor cheap, it has its advantages.

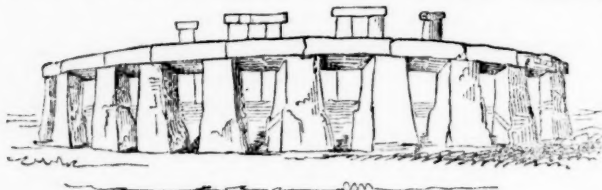
## MR. HORSFORD'S LETTERS—No. II.

London, November, 1844.

MR. EDITOR—At Blandford, I had the pleasure of looking upon an English Fair. The streets were crowded with little flocks of South Down lambs and yearlings, and flocks of other ages and breeds; little droves of swine, crates of poultry, loads of rakes, brooms, sheep-racks, groups of cows and calves, and indeed almost every kind of thing in the exchange of which, farmers could be engaged. Each pig drover kept his parcel in a compact group by the side of the street, and each shepherd, with the aid of a dog, kept his little flock, varying from a dozen to fifty, distinct from all the others. The sheep were moreover marked and branded, so that they could readily have been separated.

As we drove on from Blandford, gipsy encampments occasionally met our view; a little tent was pitched by the road side, and near it, a small house, upon wheels, which was entered by a ladder. Upon the grass, before the tent, the group of children and older persons, were seated, engaged in the manufacture of brooms, sheep-racks, &c. This most singular people have a physiognomy of their own, as well as a mode of life, and system of laws.

Stone-Henge, to which I think I alluded in my first letter, is about nine miles from Salisbury, in the midst of the plains, and very near a number of mounds. It consists of blocks of stone, dispersed in circular form, most of which are now thrown down. The outer circles of columns are surmounted by massive coping, and must have been not less than a hundred feet in diameter. The next inner circle was less complete, and the columns were dispersed upon three sides in pairs. A third inner circle was of columns much less in height, without coping, and far less regularly arranged. Within this, the so called altar stone, projects just above the surrounding soil. I subjoin a sketch of what I fancied, from a hasty



(Fig. 42.)

examination just at evening, the temple once was. At what period in the history of Great Britain, this ancient work served the Druidical priests, remains to be ascertained. It must have been there long before the Christian era, as the Romans seem to have had as little knowledge of its origin, as the race of the present day. Its history is not more obscure, than is all knowledge of the mode of applying mechanical powers, which must have been employed in the transportation of the blocks of stone. Some of them are four by five and a half feet, and not less than twenty-five feet long. They are upon a foundation of chalk, which extends many miles in every direction, and are themselves of an exceedingly hard rock, whose original site, a guide assured me, was in the extreme west of England. A block of similar form, and identical as a mineral, lying in the bed of an intervening stream, favors this opinion. My conjecture on our way thither, from what I had read and heard of the vast size and weight of the masses of stone, was that the temple had been resolved from a gigantic boulder, floated upon Salisbury plain by an iceberg; but not a boulder, not even a pebble, did I see in all the region about. (The little sketch I have given, is from memory, and may be defective in some particulars, though it gives the idea of the circular form that I had not received from engravings.)

While in London, I had the pleasure of attending a meeting of the Society of Arts. This institution has for one of its objects, the patronage of improvements in arts and manufactures. It has a collection of paintings, and a museum of models, implements of handicraft of numerous kinds—specimens of manufactures, &c. &c. On the evening of my visit, a paper was read by the secretary, upon honey and the habits of the bee. It had been pre-

pared by a gentleman, who I should think was a dealer in honey as well as an apiarian, for there had been brought to illustrate the paper, some twenty varieties of the article, from as many different localities and about as many different latitudes. Some of it was in the comb, and in little hives, boxes, glass vessels, &c., but most of it was in earthen jars. Some of the famed varieties were from the Islands and coast of the Mediterranean, and were impregnated with aromatic scents, said to increase greatly their value. The most expensive kinds were from Narbonne and Minorca. All the jars were passed among the audience of ladies and gentlemen, and tasted by all who cared to do so.

Besides this paper, there was a verbal description of two instruments for keeping wheat and other grain dry, and for exterminating insects. One of them was what may be readily understood, if to illustrate its construction, two wire gauze cylinders of equal length, but of unequal diameter, be placed one within the other, and partitions extending from end to end, be arranged so as to divide the space between into eight equal parts. The ends are closed, with the exception of a circular aperture at one end, in which a winnowing or exhausting wheel is placed; and the whole is mounted upon an axle which is made slowly to revolve. The model was about three feet long; but the instrument would hold, the gentleman who described it said, about 800 qrs. The circulation of air through the grain, was produced by the revolutions of the winnowing wheel, exhausting the interior of the cylinder, and the motion of the grain in the different apartments by slow revolutions of the whole machine. This motion dislodges also the insects. It is called the GRENIER MOBILE, and I see has been exhibited since, before the Royal Agricultural Society. (The

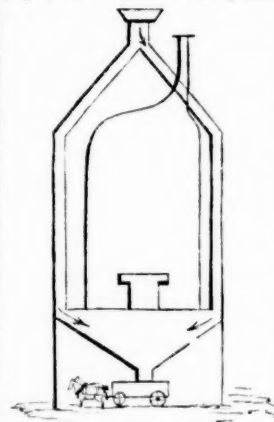


(Fig. 43.)

accompanying little diagram will explain the structure—a. a. grain apartments in a gauze enclosure, supported by strong frames. B. the

opening within the cylinder.)

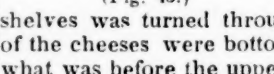
Another instrument for the same purpose was also exhibited and explained. It consisted of two cones one within the other, standing upon two similarly arranged cylinders. Within the inner one, a fire could be placed, the smoke from which passes out through an escape pipe, while the heat passed through myriads of minute



(Fig. 44.)

apertures, with which both cylinders and cones are pierced into the grain. The heat expelled all the moisture, and with it, the maggots, it is said. The grain is introduced at the top, and discharged in a cart at the bottom. It can be detained any length of time on its passage, and subjected to as thorough drying as can be required. (The accompanying diagram was sketched while listening to the explanations, and is substantially correct.)

There was exhibited the same evening, a fixture for drying cheeses. It was a frame filled with shelves at a distance asunder exceeding a little the diameter of the cheeses; and was supported upon an axis. On one side of the shelves, perpendicular strips of board would prevent the cheeses from slipping off. When the cheeses which were disposed alternately on one side and the other, at the top and bottom, to maintain the equilibrium, had remained sufficiently long in one position, the whole frame of



(Fig. 45.)

shelves was turned through half a revolution; and all of the cheeses were bottom side upwards, resting upon what was before the upper surface



There was also exhibited a "Patent for freezing, cooling, preserving and churning apparatus."

This Society, Mr. Petty Vaughan,\* whose name is not unknown in America, assured me, had greatly promoted improvements, by encouraging through reports from practical men, the use of such articles, and the adoption of such new suggestions as otherwise might never have been known.

May I not inquire if something of the kind can be incorporated with the State Agricultural Society? Might not the interest and usefulness of the agricultural meetings about to assemble, be greatly increased, if it could be announced in the morning papers, that such and such improvements, or new inventions, would be described, or reports upon some previously examined, be read, at the meeting of that evening? E. N. HORSFORD.

#### AURORA AGRICULTURAL INSTITUTE.

MR. EDITOR—Agricultural schools are in Europe no longer an experiment. Their success has more than realized public expectation. Their great utility is now there unquestioned, and their commanding public importance acknowledged. In this country public opinion in their favor has been for some years gathering strength. Their utility and eventual success here is, by the well informed generally, not doubted; but their immediate success may not be so certain. Of late much has been said and written upon the subject. The late Judge Buel, in one of his last public addresses, closes some spirited remarks upon that topic by saying: "They should be established—they will be established—and the sooner they are established the better for our country." The same sentiments have been since very frequently uttered by other distinguished agriculturists. All seem anxious to have them established here, and various modes have been suggested. Several attempts have been made to organize an institution on an extensive scale and requiring a large amount of capital. These have all, thus far, failed, as all like attempts will, as we fear, for the present certainly fail—not for the want of well founded claims to public favor, but for the want of that knowledge of those claims which personal observation and experience alone can impart. Such schools are here an experiment, and like all experiments require to be tried with as small an expenditure of funds as practicable. On such a scale the experiment is within the power of individuals; and it now seems obvious that if any early progress is made in their establishment in our State, it must be effected by private enterprise. Some of the plans which have been suggested for a private institution would seem to be feasible and to promise success.

The undersigned, with his associates hereinafter named, have been waiting with some considerable degree of patience the movement of others in the matter. They feel a deep interest in the improvement of the agriculture of the country, and in the early establishment of professional schools devoted to that object. They would not knowingly hazard or delay the future triumph of the enterprise by any movement they might make; but they feel that some practical plan should be adopted, and executed too, without longer delay. And without the knowledge of any similar organization by others, they have themselves made arrangements for the commencement of a school under the above name and title.

The farm upon which the institute is located is situated in and directly adjoining the village of Aurora, on the east bank of Cayuga Lake, in Cayuga county, New-York, sixteen miles from Auburn, by stage, and twelve south from Cayuga Bridge and the Auburn and Rochester railroad, by steamboat in summer. It contains 212 acres, under a good state of cultivation, with good improvements. The soil is various, fruit abundant, and the buildings are sufficiently extensive for the present—part of them nearly new. The farm and dwelling houses front directly on the lake, and are only about 130 rods from the church, academy, and steam-boat landing. The location is considered one of the most desirable of the many beautiful situations on the borders of the lake, commanding an ex-

tensive and varied prospect of its waters and of the surrounding country, and is altogether admirably adapted to the end in view. The country adjacent, for a few miles east and along the lake, is believed to be unequalled for beauty and fertility by any section of the same extent in the State.

It is the intention of the undersigned and his associates that this institution shall afford every facility for young men to make themselves thoroughly acquainted with the principles of agricultural science, and their judicious application to practical husbandry; and particularly to afford young men from our large towns the most favorable opportunity for preparing themselves for country life and agricultural pursuits. In connection with lectures and recitations upon the different branches of natural science connected with agriculture and horticulture, regular labor in the field will be required, and there all principles involved will be explained and impressed upon the mind. It is also their intention to commence a course of experiments, in order to test the correctness of those principles in agriculture which may be now generally received, but are not yet well established.

The undersigned will have the general superintendence and management of the institution. He will receive its members into his family, and keep them under his immediate supervision and charge. Particular regard will also by him be had for their mental culture. A suitable person and competent farmer will be employed to superintend the field operations during his necessary absence therefrom.

Dr. ALEXANDER THOMPSON, of this village, (a gentleman, in the judgment of Mr. David Thomas, every way competent,) will have the particular charge of the scientific department. Instruction in botany, geology, and agricultural chemistry will receive his particular attention.

Mr. DAVID THOMAS, who resides in the vicinity, will visit the institution and promote its object and design, by such advice and information as his well known scientific attainments, and long experience in practical agriculture and horticulture, will enable him to impart.

Terms \$150 a year, payable quarterly in advance. No person under fourteen years of age will, as a general rule, be received. CHARLES C. YOUNG.

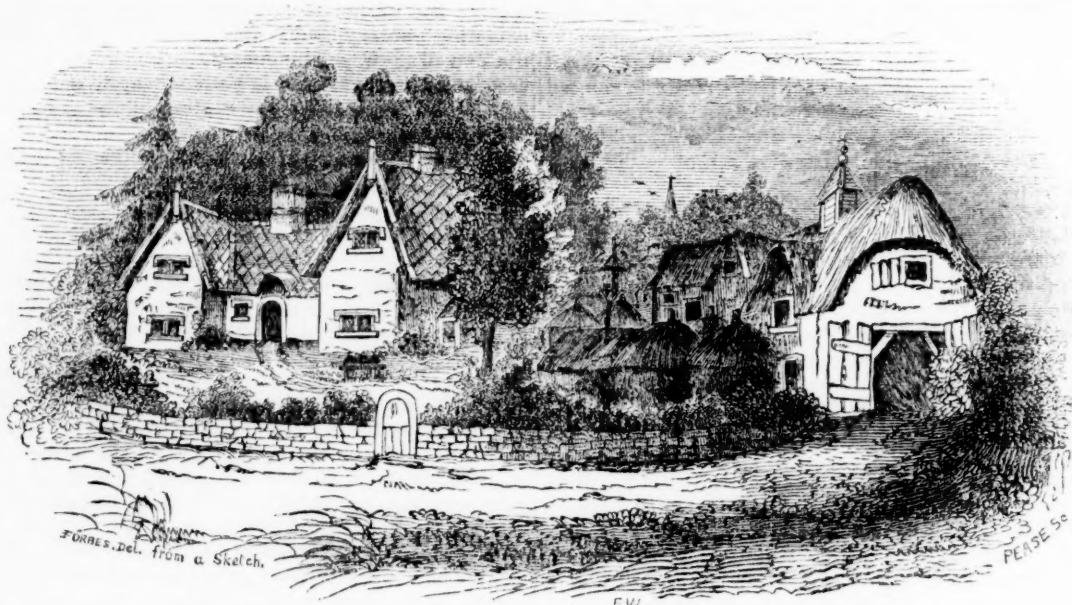
Aurora, March 12, 1845.

The publication of the above from Mr. Young, supercedes the necessity of publishing, at length, a letter we have received from B. P. JOHNSON, Esq., President of the N. Y. S. Ag. Soc'y, on the same subject. Mr. J. says—"From my acquaintance with Mr. Young, I am satisfied that he is fully competent to manage an institution of this kind, combining scientific with practical agriculture. The gentlemen associated with him are well known to the public, especially Mr. Thomas, who will aid and advise the principal in the management of his institution. I am much gratified that an experiment is about to be made to give instruction to our young men, many of whom, it is believed, will avail themselves of the advantages of this institution. Ten or twelve young men can yet be received at the institution this spring."

#### CUTTING TIMBER.

In cutting timber for farm buildings and other purposes, it often becomes requisite to know the height of the trees, more particularly of the straight part of the trunks or such as will do for single straight sticks of timber. Take a ten foot pole, (or one of any other known length,) and measure off the required distance from the tree, and make a mark on the ground. Then measure back the length of the pole towards the tree, let a second person hold it perpendicularly, place the eye at the mark on the ground, and ranging with the top of the pole towards the tree, of the top if the pole strikes above the straight part of the trunk, the stick of timber will be too short; if at or below the first crook, it will be long enough. A simpler, but somewhat less accurate way, is to take a stick just long enough to reach from the ground up to the observer's eye, who then paces the required distance from the tree, throws himself on his back, looking towards the tree, while a second person holds the stick upright at his feet, and he makes his observations as just stated.

\* Mr. Petty Vaughan, is a son of the late much respected Benjamin Vaughan, Esq. of Hallowell, Maine.—Ed.



ENGLISH FARM HOUSE AND OUT-BUILDINGS—(Fig. 38.)

(Drawn and Engraved for "The Cultivator.")

## MR. MITCHELL'S LETTERS—NO. IV.

*Liverpool, Eng., 4th Jan. 1845.*

LUTHER TUCKER, ESQ.—I send you with this, as promised, a little sketch which will give you a general idea of an English farm house and out buildings. The air of neatness which prevails about every country house I have seen, and which travelers universally remark upon, cannot be represented in such a sketch, much less by so poor a sketcher. Yet I am assured that the farm houses of Lancashire compare unfavorably with those of almost any county in England. Still there is a soberness, a quietness, a tastefulness, a rurality, and a home-look about nearly all I have seen, which once grafted upon the country houses in America, will go far toward making our landscapes equal to English in beauty. The roofs are in most instances in this country, slated; some are covered with tiles baked in the same manner with brick, and formed with a lip turning down upon the upper and under side, so as to hang upon the lathes which run horizontally. Thus the whole roof is laid without nailing. Others still are thatched; the thatch requiring renewal every five or six years. The extreme verge of the gable is generally covered with a tier of heavy stones clamped to each other. Every thing in England is arranged for permanence. Calculations in house building, in fence building and in draining, as in other matters, are made with a view not of one, or two or half a dozen years, but of a century. The barns and out buildings are invariably placed near the dwellings; indeed, not unfrequently the same roof covers both the farmer and his herd. Nor is this connection, from the peculiar structure of the dwelling, rendered disagreeable. I have not yet seen such a diversity of plans, nor so good a system of arrangement, as a whole, as to wish to make full communication of the order observed. I hope yet to have a glimpse of, and wander among the best farmers and farms of England. I give you the general course of cropping in the best regulated farms in this vicinity—Sandy land, Dairy Farm.

1st. *Oats* on grass ley. Plow in February; sow in March; heavy harrowed—light do. and rolled if dry.

2d. *Wheat*.—Plowed in October.

3d. *Swedish Turneps or Potatoes* in drills. Drawn in November; tops fed to milch cows; roots pitted for horses, cows and sheep.

4th. *Wheat or Barley*, with clover or rye grass—remains in grass 4 or 5 years.

On clayey lands—1st. *Wheat* on grass ley. 2d. *Oats*. 3d. *Fallow*. 4th. *Wheat*. 5th. *Clover*, and pastured 4 or 5 years.

The cattle are not superior in this region; some fine dairies of improved short horns. Though I am assured,

that over the river in Cheshire—the great cheese county—Short Horns are not thought well of for milkers; where they have Ayrshires, Devons, Welsh and Irish. Scotch, Welsh, Irish, and some Yorkshire and Holderness are fed for fattening. For sheep, the prevailing choice stock is South Down and Leicester. Swine are many of them Irish; on the Cheshire side are a cross of the old long bodied with Berkshire and Leicester, or China and Neapolitan. The latter are considered too light and delicate for general favor. To fatten, they are put up early in the spring; 12 months pigs, to feed on offal of dairy, (one to five cows.) Nothing more given for three months; after this, potatoes and some barley meal. Weight, 10 to 14 score. Sows farrow twice a year, in February and August. Young stock is raised (on dairy farms in Cheshire,) 5 to 20 cows—those dropped in March. The food is a half pound of meal in a tub, with scalding water, or whey poured to it, well stirred; skimmed milk added; given till midsummer; then weaned, well pastured, well wintered with hay, bruised oats and turneps; turned to feed in April. Implements are various; perhaps fewer of the improved kinds in this, than in any other county. I send you two or three sheets of cuts with price attached. Tiles for draining are in most general favor; 1,000,000 a year are made upon the Marquis of Westminster's estate alone.

American apples still have a good sale; you will notice in rates given below, their value as compared with English. The English apples, such as I have seen, are small and without flavor. Good pears are in the market, but all from over sea. The "Underhill" apple brand (American) appears to be the favorite one in this part, doubtless from the good state of preservation in which they open. They are, I think, from near Sing-Sing. American cheese is plenty in the markets. Every ship from New-York or Philadelphia, brings a quantity. Its treatment upon the docks under custom officers, is most severe. The boxes or casks in which they are stowed, being knocked to pieces; if they open easily, (packers must take the hint) well; if not, they must come open—no gross weight being allowed. After weighing—one by one—they are tumbled upon the dirty dock from the scale, for the carman to replace in box or cask as he best knows how. I have seen many fine cheeses ruined under this treatment. The sale of American beef is in the cutting; this cannot be told too often; specially is it so in the London market, where inspection is most searching. I should have mentioned in my last, that the tax on beef and pork, for cask and pickle, is almost invariably one-third part; for canvass wrappers of hams, 8 oz. each. Tallow, 12 per cent.

I give you the ordinary retail prices of provisions from



the market houses of Liverpool, that farmers at home may compare notes with the British farmer. In some subsequent letter I will give you a list of all the taxes to which the English farmer is subject, that so the comparison of situations may be more complete, and a still higher satisfaction, as I do not doubt it must rest with our countrymen. The duties on coffee and tea are enormous; on the first, 15 cents a pound! on tea, 45 cents! The price of

A goose in market, - 88 to \$1.00	Cabbage, per head, - 62 to 64
Fowls per pair, [light,] 60 to 80	Celery, per root, - - - 61 to 68
Turkey, - - - - - \$1 to \$1.75	American wild ducks, \$1 to \$1.25
Hare, (w't of 2 rabbits) 50 to \$1.00	Apples, (Eng.) 30 for 22
Beef, per pound, - - - 14 to 20	" (Am.) 14 for 22
Mutton, " - - - 12 to 14	Cheese, (Stilton,) lb. - 25 to 30
Pork, " - - - 12 to 14	" (Cheshire,) " - 20 to 28
Veal, " - - - 12 to 14	" (American,) lb. 14 to 16
Potatoes, per bushel, - 40 to 50	

In my next, I will give you an epitome of such agricultural glimpses as can be taken in a day's run through England from Liverpool to Gravesend. After which, and until spring opens (with me,) look for a chapter or two about the pruning hooks and vineyards of France. Yours, &c.

D. G. MITCHELL.

#### MR. NORTON'S LETTERS—No. IX.

Lab. of Ag. Chemistry Association, }  
Edinburgh, Jan. 21, 1845. }

L. TUCKER, Esq.—As I have now been long enough here to form an opinion as to the usefulness, and to become acquainted with the operations of the Agricultural Chemistry Association of Scotland, it has occurred to me that a sketch of its history, constitution and present prospects, may interest your readers, the more so as I perceive that the American papers teem with plans for the promotion of the great object of connecting science with agriculture.

Desirous, as an American, to share the benefits of this Association, even more fully than I am able to do in its Laboratory, by attendance upon the meetings of the subscribers, I have enrolled my name among its list of members, and a few days since had the pleasure of attending the second semi-annual meeting, being at the close of the first year of its existence.

The Association took its rise, and this cannot be too strongly urged in its favor, from tenant farmers chiefly; shrewd, practical men, who conceived this plan as most likely to promote, in its direct application to their interests, that science which they felt had become necessary to them.

The two leading objects proposed, were the diffusion of existing information, theoretical and practical; and the enlargement of our present knowledge. For the carrying out of these designs, Prof. Johnston was selected, and having received the appointment of Chemist to the Association, has been for eight months of the past year actively engaged in the prosecution of the arduous duties which devolved upon him.

In the prosecution of the first object, he has delivered no less than fifty-three lectures in nearly every part of Scotland, some of which I have sketched in previous letters. They have been eminently successful, and have awakened much interest in every instance; no less than eight or nine agricultural periodicals have sprung up at various points, as the visible first fruits of success. Private lecturers are also busy in many places following up his teaching, or supplying his place in localities which he has not yet visited. The school-masters too, are aroused, and are many of them actively engaged in the same work, so that the effects of his visits are likely to be permanent.

In this Laboratory, three assistants have been at work, nearly ten hours daily, through the year. Analyses are performed for subscribers, at certain fixed and very low rates, so low indeed as not by any means to repay the expense of the operations. Of the great privilege thus placed within their reach, the Scottish farmers have not been backward in availing themselves. The report says, that no fewer than 384 analyses have been made during the past year; the subjects as follows:

Soils, .....	134	Marls and Limestones, .....	27
Guano, .....	122	Potatoes and other vegetable products, .....	9
Ashes of Plants, .....	25	Miscellaneous, .....	37
Oil Cakes, .....	4		
Waters, .....	26		

The mere reading of this list shows that from the very large amount of work performed, much information and many useful results must have been obtained. With most of the analyses, letters of advice have been sent, and with some of them, elaborate reports. Among some of the more strictly practical points upon which light has been thrown, it may be mentioned that analysis has shown striking differences in the chemical constitution of turneps raised by dung and by guano. In consequence of this, experiments upon their feeding properties have been made, and the result so far, seems to indicate the superiority of those raised by dung. Oats have been found to yield in larger quantity than any grain used for food in this country, those ingredients which furnish muscle to animals.

The quantity of these ingredients in turneps, is under investigation, and it has been already ascertained, that they equal in this respect, 1-30th or 1-4th of their weight of wheat or barley. A variety of rocks have been analysed, with a view to the determination of the quantity of lime contained. The Trap rocks have been found uniformly to contain a very considerable proportion, while the clay slates scarcely contain any. These facts show that we may expect a decided difference in the quality of soil resulting from the decomposition of the two rocks.

These instances show the nature and utility of such researches, and they will I think, give your readers an idea of the sphere embraced by the labors of the Association. But analysis is not all; a very onerous portion of Prof. Johnston's duties has been the answering of questions upon practical and scientific points, for many of the farmers have commenced *thinking*, and propound queries which often touch upon the very verge of our present knowledge, and sometimes go beyond it, opening new fields of most difficult investigation.

I think that this institution may safely be said to have realised the expectations of its projectors. They were most fortunate in the selection of Prof. Johnston for the office which he has filled so well, and to which his energies have been so zealously devoted. By the co-operation of his scientific researches with the practical experience of the farmer, great advances have been made already, and a spirit awakened which will bring forth in all probability, still more remarkable results.

The Scottish farmers, thus have the credit of being the first to establish an institution purely for the purpose of applying chemistry to their profession; so far it has been successful, but remarkable as that success has been, it only opens the way to vast fields for research, yet untrodden. It has shown however, what may be done by united effort, by skill and perseverance, and I would in that light, recommend it to the notice of my countrymen, not that I would consider it absolutely necessary for us to found institutions constituted in exactly such a manner; the form is comparatively unimportant, it is the *conviction* and the *spirit*, that are indispensable.

I may suggest, however, that in the formation of agricultural colleges on an extended scale, such as now seem to be projected in our country, with each should be connected a branch for the pursuit of *chemistry* as connected with agriculture, and for the dissemination of knowledge on that subject. Only by means of such institutions can rapid progress be made, and until they are established the great mass of farmers will be unable fully to profit by the knowledge we already possess.

Our country opens a noble field for improvement, and I hope that we begin to perceive it. Other nations have commenced the work before us, but when our farmers arouse, and apply that American enterprise and perseverance which has outstripped the old world in the paths of commerce, we shall have no cause to blush at our deficiency, nor at the share that we shall take in completing one of the leading desiderata of our time, a system of scientific agriculture. Very truly yours,

JOHN P. NORTON.

Look to your bees and poultry.

## EXPERIMENTS.

**SOWING INDIAN PEAS BROADCAST.**—Several times in my life, I have plowed in seed peas, broad cast, to be used either for crop, manuring or sheep pasture. The quantity to the acre, according to the quality of the land, from one to two bushels. One who has surplus peas, and ground too poor to grow clover, may do well to sow them for improvement; but as they make superior pasturage for sheep, perhaps one may afford to buy seed for such purpose, even on poor land. The Indian pea yields well on poor land, (cold clays excepted,) and abundantly on ordinary; but on rich ground, a heavy crop of vines, but no peas. When sowed sufficiently thick, broad cast, the raising kind of this pea stands well for mowing.

**PUMPKINS AND CIMLINS IN CORN FIELD.**—It is folly to plant either pumpkins or cimlins in any other than rich land, and such, if properly seeded with corn, will produce with us, by the middle of July, a corn crop sufficiently luxuriant to smother every vine, pea, turnep, weed and grass. Whatever a corn field, properly planted, may yield in addition to corn, is just so much subtracted from the corn.

**OAT AND ORCHARD GRASS PASTURE.**—Three years past, I sowed 8 or nine acres in oats and orchard grass. These acres lay in detached spots, and all within a pasture inclosure of about 200 acres; and which, not being fenced separately, was grazed closely from the beginning to this present time. The oats made an excellent pasture a good portion of the first year; and the orchard grass, where the land is rich, has made a good pasture ever since. New land of medium quality, will produce orchard grass very well, provided the soil is retained on the surface, to do which the coulter should be used to put in the seed.

**IRRIGATION.**—Seeing the many and great advantages arising from casting water on lands or crops, I am surprised and mortified to see so little of it done in my neighborhood, yea, and my country.

Arthur Young, in his *Travels in Spain*, says that "in the midst of an arid, wretched desert, he came to a spring which was immediately conducted into a reservoir, and thence used to irrigate maize, hemp, cabbages, and beans, which were all fine. As soon as the land is sown, it is watered, and periodically till the plants are up; moderately, while they are young, but every day and sometimes twice a day, when full grown. The effect is surprising, and infinitely exceeds that of the richest manure that can be spread on any land."

I can turn a creek on a portion of my bottom lands at pleasure, and have ascertained its effects on the following vegetables. Moderate irrigation improves rye at any stage of its growth, but there is danger of its rusting. When corn is in silk and tassel, it will grow and thrive wonderfully in mud the balance of its days. Irish potatoes and cabbages like frequent flashings, but as the cabbage should be worked often and during the whole summer, the farmer should calculate accordingly. Red clover likes a wetting, and white clover likes many. Profuse irrigation does not suit oats, peas, artichokes, pumpkins and cimlins; and will rot all the lower end of carrots, parsneps, beets, radishes, turneps, &c. Irrigation in the slightest degree does not suit tobacco or wheat, and to excess, is destructive.

Every person will of course know that casting water on a crop is useless labor when there is abundance of rain and consequently, the hotter and dryer the climate, the more necessity for irrigation. I wish some one, owning a few hundred acres of poor sandy land, which could command water sufficient for its irrigation, would exchange with me for as many acres of the richest kind of mountain land. Or if he will not do this, I wish he would go about its improvement, and let me know the result.

**TO KILL WIRE WORMS AND CUT WORMS.**—I have never been pestered with worms of any kind in my corn when the land has been thoroughly plowed in winter; but have always suffered on rich ground, when this has been neglected.

**EARLY PLANTING AND SOWING.**—The earlier we plant

or sow spring crops, the better, provided they are not in danger of being frosted; and the earlier we sow wheat and rye, the better, provided they are not in danger of premature heading. The objects and advantages of early seeding in both cases are the same, viz: 1st, less labor and risk—2d, earlier maturity—3d, fewer weeds and grass to contend with—4th, less exhaustion of the soil by evaporation, because of the timely shelter afforded the earth—5th, a lower and stouter vegetable.

**MANURING IN ADVANCE.**—The greater portion of my manures are spread broad cast on the surface one or two years in advance of a crop; and the ground generally not grazed. If any person can do better, let him go about it.

**DITCH MOULD.**—I am now engaged carting on my meadow about 200 loads of mould, taken from a reservoir about 15 months past. It is black, rich and friable, and perhaps worth as much as so many loads of dung; particularly on that portion of my meadow on which it is spread, it being a red stiff clay. The ditch or reservoir is now filling again by means of a small stream, which is made to run out at either end at will.

Amherst, Va., Feb. 1845.

ZA. DRUMMOND.

## THE VALUE OF THE SCOTCH LARCH IN ARTIFICIAL PLANTATIONS.

**MR. EDITOR.**—One of your correspondents in the October number of your interesting journal, seems desirous of some information as to the adaptation of this valuable tree to our country, and also as to the distinguishing difference in the natural habit of growth, quality of wood, &c. between the foreign and the native species, more commonly known as the "Hackmatack."

Having paid considerable attention to the Scotch Larch, and imported some thousands for the purpose of ornamental plantations, I am happy that it is in my power to communicate some observations respecting this comparatively rare tree, that may not prove uninteresting.

Since the decline of the oak in England, from the vast inroads made in these once noble forests for the purpose of ship-building, the Larch may now be considered as the great timber tree not only of that country, but of Europe; and if it does not entirely and eventually supersede the oak, it will at best give it that breathing space that it so much requires to again equal those specimens of which so few, alas, now remain.

The European Larch, claims its birth among the Alps and Appenines; there its great hardihood causes it to flourish, where no other tree can survive; hanging over rocks and precipices, which have never been visited by mortal foot, it assumes that wildness that renders it invaluable as a picturesque tree. Strabo speaks of Larches of a very great size; many of them he says would measure eight feet in diameter, and at this day even, masts of larch from 100 to 110 and 120 feet in length, have been floated down the Valois through the lake of Geneva and down the Rhone to Toulon for the French dock yards. In the *Memoirs of the Royal Society of Paris* for the year 1787, there is an Essay by the President, M. De La Tom D'Aigue, on the culture of the Larch, in which it is celebrated as one of the most useful of timber trees; he tells us that he has in his own garden, rails that were put up partly of oak and partly of larch, in 1743. The former he says have yielded to time, while the latter are uninjured. Experiments to test the durability of this wood, have also been made within a more recent date in the river Thames; posts of equal thickness and strength, some of oak and some of larch, were driven down in the river, where they were alternately covered by the tide, and there left to dry by its fall; this species of alternation being of course the most trying to timber, and accordingly the oak posts decayed, and were twice renewed during a few years, while those of larch remained altogether unchanged; a particular advantage this tree possesses for naval architecture, is that the wood is almost indestructible by fire, and not liable to splinter in engagements. It is also valuable to the cabinet maker, as besides its great clearness and hardness, it is susceptible of so fine a polish as to be almost transparent, and may in this state be wrought into the most beautiful wainscot. Before the use of canvass became general by the old mas-



ters, it was much used to paint on; and many of Raphael's pictures are painted on pannels of larch.

The superiority of the foreign over our native varieties, consists principally in the great rapidity of its growth, and its power of adaptation to the poorest soil; while the American larch is properly a swamp tree, and grows but indifferently in any soil not naturally moist and humid; the foreign, on the contrary, will grow in any soil or situation, no matter how meagre or bleak, and is therefore admirably adapted to plant upon our mountains and barren lands that are valueless for other purposes, since, in addition to its rapid growth, it possesses the peculiar property like the locust of manufacturing a soil as it increases, from the annual decomposition of its leaflets; thus we find in the extensive larch plantations of the Duke of Athol, that land not worth one shilling sterling per acre, before the larch was planted, became worth eight to ten shillings sterling per acre after the first thirty years, when all the thinnings were completed, and the trees left for naval purposes, at the rate of 6s., four hundred to the acre, and twelve feet apart.

The larch, as I before remarked, is a very quick grower, comparing, and in fact exceeding the poplar, and our most rapid growing trees. The anecdote is, I believe well known, of the Duke of Athol seeing a British frigate built in 1819, at Woolwich, of timber planted at Blair and Dunkeld by himself and the Duke, his predecessor. I have myself, trees that eighteen months ago were growing in England, that have made shoots of over five feet this season.

As regards the difference of appearance between the two species, as to foliage, habits, &c., I confess that to my taste, there is hardly a comparison; the foliage of the native sort is a bluish green, and though perhaps more delicate than the foreign, yet this is more than compensated by the picturesque and infinitely beautiful manner in which full grown trees feather to the ground—the American larch being more rigid and stiff, and possessing little of that graceful and pendulous manner which so distinguishes the foreign tree.

After these remarks, I cannot too warmly recommend the extensive introduction of the Scotch larch among us both for ornament and profit; when judiciously treated, nothing adds so much to the spirit or charm of artificial plantations, as this striking and picturesque tree, and for purposes of profit, it possesses all the valuable properties of the locust, while it exceeds it in durability and rapidity of growth, besides being less fastidious in the soil it requires, and I cannot therefore suggest a better appropriation of the many acres of the rocky, mountainous and barren land which exists among us, than plantations of larch. They can be imported into this country at a cost of less than two cents per tree of three feet high; and for extensive plantations, trees of one-third the cost and size would do better; and when we consider the lightning rapidity with which our primeval forests are disappearing under the axe of the improver, does it not become the duty of every prudent farmer and land-holder to ask himself, how are we to meet hereafter the deficiency in timber? I would answer, plant larch. You can at least emulate the Long Island farmer, who portioned off his children from his locust grove, planted on his marriage.

You may even do more with the larch, than he did with the locust; for your descendants may, in course of time, verify the saying of the Romans, "That a post of larch will outlive a pillar of iron."

By a careful comparison of the value for ship building, of the oak and larch, made in the government plantations in England it would appear that a larch of 50 years, produced as much available timber, as an oak of 100.

*Fishkill Landing, Feb. 11, 1845.*

#### AGRICULTURAL MEETINGS.

MR. EDITOR—The weekly agricultural meetings at the Capital, are attracting much attention among farmers. The proceedings are read with great interest, and the inquiry is often made why the editors of country papers do not more frequently publish them. It will not how-

ever, be delayed much longer. The interest of the publishers will lead them to furnish such intelligence as the public require.

I was much pleased in reading the discussion at the sixth meeting, on the subject of *manures*. Having had some experience in top dressing grass lands with animal manure, and as the results were different from the views of my esteemed friend Bement, I will give you a brief statement. A few years since, having a piece of meadow land which produced very light grass, and being so situated that I could not plow it up, I determined to give it a good top dressing of stable manure. I drew on and spread early in the spring, about twenty loads to the acre. My workman was very sceptical as to the experiment, and said that there would be no grass. The same man, when the piece was mowed, became a convert to this method of improving the meadow. The crop was more than doubled, and the effects for three successive years, were most manifest.

We want many carefully made experiments on the subject of the proper application of manures, especially those from the yard of the farmer. Upon these, we are mainly in this country to rely, and the investigations which are making, will, I trust, lead to the establishment of some general principles, that will materially aid in the application of manures.

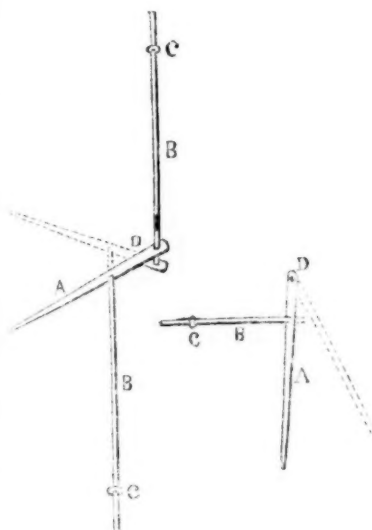
I am preparing another piece of land the present season, in the same manner as the one alluded to, and should my life be spared, I shall give the result to the readers of the Cultivator.

B. P. JOHNSON.

*Rome, March, 1845.*

#### BARN-DOOR FASTENINGS.

MR. EDITOR—I have some barn-door fastenings of my own invention, which I find the most convenient of any I have seen, a description of which I forward you.



[Fig. 40.]

[Fig. 41.]

A. (fig. 40,) handle, eighteen inches long, made of one-horse waggon tire, tapered to one-third its width, with three holes punched through the wide end, two inches apart.

B. B. two bolts, of three-quarter inch round iron, attached to the handle, either by splitting the end, or by a rivet.

C. C. two eyes, with screws or staples driven thro' the door at the top and bottom, thro' which the bolts pass to guide them

to their proper places.

D. screw-bolt, which fastens the whole to the middle rail of the door frame, and passing through the middle hole of the handle; which I find is all that is necessary in the middle, without any guides but the ones at the bottom and top of the door.

The opposite door I fasten by a bolt on a different principle from any I have seen. Annexed you have a drawing, (fig. 41,) but you will perceive that some other fastening will be required if you wish to open the door from the outside; but with me it is necessary to keep my barn locked; but with those who use a latch, I think if they will try my double bolt fastenings, they would not willingly be deprived of them.

A. (fig. 41,) handle fastened to the middle rail of the door, by a screw-bolt at D.

B. Bolt, one foot long, of half inch iron.

C. eye or staple, through which the bolt passes.

The dotted lines show the position of the handle when the bolt is drawn.

FRANKLIN COUNTY.

## NOTES OF TRAVEL IN THE WEST—No. II.

BY SOLON ROBINSON.

MY DEAR READERS—The violent snow storm that drove us into quarters last night, like violence of all kinds, soon spent itself, and leaving given place to a clear cold day, sent yourselves by my side, and we will roll away to the south, and notwithstanding that the wind is "dead ahead," and blowing a fine fresh breeze, we shall beat up against it with ease, though not with so much comfort as you might desire. The first dozen miles, you may observe, after leaving the grove of fine timber on our right, is too level and "wet-tish" to be desirable. But here we come to the beautiful village of Tremont, (the county seat of Tazewell,) with its handsome courthouse and church; but what interests us more, is to see that the sons of New-England, who settled and still flourish here, so far departed from the fashion of this country, that they have given wide streets and large building lots, many of the occupants of which have still farther departed from fashion, as we can plainly see by the multitude of shade and fruit trees that surround and beautify their dwellings. We will not call, though tempting signs hang out, for we are told that notwithstanding the beauty of the place, old King Alcohol, here holds undisturbed sway. If this, "an o'er true tale" should be, I hope the Tremontians will rouse themselves to break the tyrant's rule.

In the valley of a stream called Mackinaw, that winds through broken stony hills of stunted timber growth, we witness the first marks of that great flood that desolated thousands of western acres. The little cabin is alone standing; all else is swept away. As we rise again upon the 25 mile wide prairie, which our road lies across, we see five miles ahead, a most enormous frame house, which was built, (all but putting together,) in Rhode Island, and now stands a monument of a bad speculation, towering its three or four stories far above the half dozen little tenements below, that rise from the town of Delavan, a name that sounds familiar in the ears of all tectotals.

This town was projected for a "colony;" whether it was a part of the project that the colonists should live without wood, I am not informed, but certes there is but little in sight, and that little far away to the west, while eastward lies untold miles of prairie, and southward along our road a long 12 miles will bring us to an only house, with just about timber enough to fill an old fashion New-England fire-place, but for eight miles more, there is no one to claim a share of this poor pittance of fuel or interfere with this ocean of prairie. To day we cross several creeks that would be good mill-streams, but unfortunately there is neither fall or good banks. The bridges are dilapidated by the high water and natural quick decay of timber in a damp climate, and the roads such as nature made them, with but little labor from this non-road-working community. The night we'll spend at what is somewhat rare, a comfortable country inn, at a small specimen of a village called Middletown, so called perhaps because like many others, it is in the middle of a middling sized prairie, 20 miles north of Springfield, the capital of the Sucker State. From whatever cause this name for the State originated, I doubt not that many who have been "suck'd in" by the private speculations of individuals, as well as by the wild projects of internal improvement that have suck'd in so many millions of dollars, will think the name an appropriate one.

Indications of a change of soil are visible to day. The timber is such as is commonly found on the alluvial bottom lands of the west. Maple, elm, black-walnut, ash and buckeye, interspersed with oak, the prevailing timber further north. And a still greater indication shows by the absence of barns and other "yankee fixings," that show the yankee thrift of character, that a population of corn-growing, hog-feeding, corn-bread and bacon-eating southerners are in the majority in this latitude. Our eastern built carriage, with two wheels in the rut upon one side, while the other two are jolting upon a rough ridge, tells us that we are in a country of "wide track wagons," driven with the "single line" as we see, by a teamster seated upon one of the horses. And why should it be different? Did not their father's so drive before them!!

In the bluff of the Sangamon river, (5 miles from Springfield,) which is here a good mill stream, and so used, where it has been dug out to form a road to a fine new bridge, we see the rock in every state of formation, between soft clay and hard limestone. From the river to near the town, the road lies over a tract of very poor sandy hills, full of gulleys and covered with brush, that probably never will again be worth as much money as it was valued at a few years ago, when Springfield was "going to be" a London or Pekin, in the eyes of men, that in counting dollars, discarded all figures below millions.

Now, on this 12th day of January, 1845, at Springfield, the capital of the State of Illinois, it is a mild sunny day, more like May than midwinter, and a drouth prevailing like midsummer. In fact, it was so dry last fall, that not half the seed sown grew, and many of the wheat fields look as bare as naked fellow. Whether it will grow in spring, is yet to be proven. My opinion is, that it would be good policy to sow it now with a seedling of spring wheat. Many of the corn-fields that I have passed, bear ready evidence of the prevailing rains of the spring and early part of summer. In some of the fields, on flat prairie, the crop was not worth gathering, while in others of drier soil or more rolling land, the crop was a good one for this country of untold richness of soil, say 30 bushels to the acre; and even that in many instances we see still in the field, for such is western farming.

Now curiosity may perhaps inquire for a description of this capital. If I give one, it must be of briefer space than the scattering town of 3 or 4,000 inhabitants, who mostly occupy poor buildings, upon small, dirty, treeless, grassless, gardenless lots, upon long unpaved level streets, which are never very muddy, unless more than knee deep; which it is not improbable they should be, as the town

is upon a wide plain of soft loamy soil, with no outlet for accumulating water, unless sent off "by the rail-road," which is so thoroughly out of repair at this time, that that would prove a poor sewer, except of the people's pockets.

This rail-road, from hence to Meradosia (65 miles) on the Illinois river, is another of the links of that endless chain that was to bind the State in love together, but has bound them in debt forever. It is already so dilapidated that mules have been substituted for locomotives, and as it fails to pay expenses, it must shortly go out of use for want of repair.

Another monument of by-gone Illinois riches, is the unfinished ill constructed State-house, built of cut stone, of a hard sandy limestone quality, at an expense of a quarter of a million of dollars. It is 80 by 120 feet, of two extremely high stories above the basement, (which is useless on account of dampness;) and contains a hall for the 120 members that represent the 99 counties of the State, a Senate of 41 members, and a Supreme Court of 9 judges, which by some is thought to be supremely ridiculous; a very large library room with very few books, except Illinois laws, and office rooms for Secretary and Treasurer of an empty treasury, but is almost totally lacking in what is most wanted, rooms for committees. The masses of stone and half finished columns that lie around, the unhung doors and unplastered rooms, show that the work was suddenly checked at a point that shows the whole work was done upon "borrowed capital."

Of the members of the house I shall say nothing, except to beg you as you look upon and listen to them, not to consider them as a body, although large, a fair sample of the moral worth and intelligence of the inhabitants of the State. The appearance of the Senatorial body is highly respectable, and is presided over by one of the best presiding officers I ever saw; Col. Mattison, a Senator from Juliet, whose woolen factory I mentioned, I met with here, and owe to him my warmest thanks for every effort in his power extended cordially to me to further the object of my mission. I also was treated with great respect by many other Senators and representatives, who seemed fully to appreciate the benefits that would accrue to the agricultural community, if they could be induced to read good agricultural papers, and to talk, think and act upon the business of their every day life. I spent three days amid this congregated wisdom of Illinois, from which I hope some good may arise; and should have held a public meeting to talk to the few farmers in the Legislature, but I found that self-interest, party tactics, and Mormonism, so completely absorbed every other interest, that such plain common sense matter as improvement in agricultural pursuits, had no possible chance in such an excited community. Our friend Wright of the Prairie Farmer, was also at Springfield, engaged in a noble effort to get an improvement in the present very defective common school law of Illinois. An uphill business—reminds me something about casting pearls before a certain kind of animals.

There are a few good buildings in the "city," one of which is the defunct State bank, built of the same material as the State house, from a quarry about 8 miles distant—also a stone church. There is a large plow manufactory here, which makes about 2,000 a year, with wrought iron mould-boards, which are not equal however to those made wholly of steel at Chicago. There are two furnaces for small castings, that use iron from Tennessee, and coal to melt it with from Philadelphia; the coal of Illinois, which is abundant within a few miles, not being fit for that purpose.

This is an old and rich country, with good soil and timber, yet there is a great deal of uncultivated land. There are some orchards, but as the country has not been settled more than 20 or 25 years, people must be excused for not having fruit, as it takes a great many years to get that, when there are no trees set out.

As an evidence of the rapid growth of timber, I was told of one 50 acre lot that was cut off nine years ago, and will now afford fifteen cords to the acre, mostly oak. This kind of wood is worth about \$1.25 a cord in Springfield. Wheat here, as well as all along the road from Ottawa, is worth about 50 cts., corn 20 cts., oats 15 cts. And every where through this part of the State, there is one universal cry of no money, and very poor crops for two years past, which I can readily believe, and will also add that they will be so for two years to come; for no system of farming like that almost universally followed here, will ever afford the farmer good crops. Although he may raise a great many bushels of corn, and keep a great many poor hogs, horses and cattle to eat it all up in the winter, which they must do for lack of any other kind of feed, he will still cry "no money;" and still go on in the same way, for he will not inform himself of a better system. His rotation of crops is corn, weeds, hogs, mud and corn. His reading, if indeed he happen to be one who reads at all, consists of a very brief insight of one book, and one well worn paper of the one party in whom he places all faith. In such a community, better informed men are out of place, and all their innovations looked upon with jealousy, and their better success from better management, with envy.

On the morning of Jan. 16th, I intended to leave Springfield, but was detained by a thunder shower till evening, when I drove out on the St. Louis road over wet, uncultivated prairie, 5 miles to "Lick creek timber," an excellent body of good land, good farms and fine timber.

Notwithstanding this is an old county, that is old for this young country, there is an abundance of uncultivated land, and that too within gun shot of the capital. On most of the creeks and ravines, coal is found in abundance. The streams through this part of the State are sunk in deep hollows, and run between high, steep, muddy banks.

At a poor deserted looking village called Auburn, I met with a rare sight—an actual live nursery of well assorted fruit trees, cultivated by the Rev. Wm. C. Greenleaf, a very worthy Presbyterian minister, whose talents not being appreciated sufficiently to support his declining years, has turned his well cultivated mind to the cultivation of trees, and for which he finds more persons willing to pay, than he does for preaching, which they prefer to have of a cheaper



quality. Mr. G. is trying a hedge of native thorn; and will give the result when ascertained. Like all well educated gentlemen of his profession, he takes an active interest in agricultural improvement, and uses his influence to extend the circulation of agricultural papers. By his advice, I called upon one of his neighbors, upon a farm upon which he keeps 100 head of cattle, and a "right smart chance" of hogs, but they are dying with the kidney worm, and he made a "bad crop; it was so powerful wet in the spring that the erap got right smartly in the grass! and then again it got dreadful dry," and so with all these misfortunes, he felt too poor to subscribe for a paper. I hinted that if he had taken one, he would have found a receipt to cure the kidney worm, and thus have saved fifty dollars worth of hogs. But "he reckoned these ere papers told a heap of lies;" and so to save the poor man's conscience as well as hogs, I told him to give the latter sulphur, which if I had given him the medicine as well as advice, perhaps he would have done.

After leaving this fair specimen of a large majority of the settlers of this country, I entered just at sundown, upon a 20 mile prairie, intending to drive five miles to the first and only house, and spend the night; but as I approached, one unacquainted with such scenes, might have fancied that instead of a country tavern, he was nearing an army encampment; as it required no great stretch of fancy to convert a score of white wagon covers into tents, and the noise of a dozen families of emigrants, into that of a small detachment of "la grand armie." Indeed, such scenes in the west are by no means uncommon. There is one of the roads that enter Chicago, upon which I have seen 300 wagons pass in a day, and that not a rare sight, but one often seen.

Finding in the present case, that if I remained I must content myself with a very small portion of a bed, and my horses with a birth by the side of a rail fence, I soon concluded to "put out" and brave the terrors of a threatening snow storm upon a prairie 15 miles across, as upon the other side lay the town of Carlinville, the seat of justice in Macoupin county. I am of opinion that if that fellow who is astonishing the "down easters," fiddling the "solitude of the prairie," had been with me this evening, that he would have been able to play the tune in much greater perfection. Perhaps he might add,

"Oh solitude, where are the charms  
That emigrants see in this place;  
Better stay on their own little farms,  
Than own all this horrible waste."

And he might add another stanza to a lone tree standing solitary and alone in the midst of this ocean of land, like a sentinel watching alone over the solitude of the prairie, which is more profound than the solitude of the darkest forest.

No doubt many of my eastern readers would have hesitated long, and rather put up with lodging "three in a bed," sooner than undertake the passage of such a prairie in the night. But we soon get used to it, and as in the present instance, get through it in good order, and by contrast are able to reap double enjoyment by the side of a good fire in a good inn. The town of Carlinville, like many others in the west that grew up like Jonah's gourd, when men forsook the cultivation of the soil to grow suddenly rich in town lot speculation, now shows in the dilapidated appearance of tenantless houses, that it would have been better for many if they had been content to pursue a steady, though slow, yet certain road to comfortable independence which surely attends the careful cultivation of a good soil.

During this day's drive, after leaving Carlinville, I witnessed the rapid increase of timber that is every where taking place in the prairie country, where protected from fire. Though during the past fall, in consequence of the great drouth that followed the great flood, immense damage, not only to the young timber, but in the destruction of fences, has been done throughout the whole of my journey. And this drouth still continues, so much so that the few mills that are to be found in this part of the State, are almost useless, and settlers complain of "long trips to mill." The roads, even in the beds of streams that are sometimes impassable, (where bridges are not, and that is every where when it is possible to "get along" without them,) are dusty, and the land in fine order for plowing, though I perceive but little of it doing. And would you know why? Why, is it not winter? And who ever heard of plowing in the winter, in a country where we are above such vulgar business as working when we are not obliged to. And another reason is that most of the cultivated land is every year in corn, and much of that is not yet gathered, and besides the stalk fields are the main dependence of half the farmers in the country for wintering the stock. And under such circumstances, notwithstanding the favorable nature of the weather for plowing, if they even had a disposition to do it, they cannot avail themselves of the opportunity. But you will say they might be otherwise employed; getting up wood for instance. Beg pardon, but you don't know "our folks,"—they are waiting for sledding.

But there are many exceptions to this waiting kind of population, one of which I witnessed at Chesterfield in this county of Macoupin. There were not only orchards and barns, but beautiful groves of locust around the comfortable houses, at one of which I found a dairy of 70 cows; and at almost every house a file of the Cultivator or Prairie Farmer, a paper in high credit in this State. And reader, where do you think this intelligent and enterprising population were from: I shall not tell, but if you are a yankee, you can easily "guess." I found one of them busily engaged building a new barn, which he assured me he was incited to by reading my remarks upon the subject of the want of this indispensable farm building in the west. I hope my remarks, and the contrast that I shall exhibit to them between good and bad farmers, that I meet with upon my present tour, will also excite many others to make improvements.

And here is one example by way of contrast—I spent the night in the cabin of one who had become familiar with my name in the Cultivator, and felt great pleasure in extending a warm welcome to the best he had, to one he had long looked upon as an old acquaint-

tance and friend. He is a physician, whose practice required him to keep two horses, and where do you think he kept them during the inclemency of a wintry storm? In the stable, do you say. Well, it was in a large one, then, which nature alone had any hand in building. For no other had he, and therefore in the morning, I had no scruples of conscience against bringing my horses out of the corner of the fence where they had spent the night, and hitching on to the carriage for a 14 mile drive over a bleak prairie, facing a south-east snow storm, to a little town in the same county called Woodburn, where I spent the balance of the Sabbath in very comfortable quarters for both man and beast. Now, I shall not mention the name of this really good man, though to us he has an odd way of showing his goodness to the good creatures created for his use, but that is all owing to his "brought'n up" in a section of the United States that "I reckon" you will not wish me to tell you lies south of that celebrated line of Mason and Dixon.

I found my host, (Dr. Grimsted,) a very intelligent Englishman, who, together with many of his countrymen of the same stamp, have settled in and about this place, which is located upon good prairie, scarce of timber, inconvenient to mills, and possesses rather too great a share of that kind of "go-day, come-day" population, which fill the southern part of Illinois with a class of men that are content to live not only without stables, but without many of the other comforts that constantly surround the cabin of the eastern emigrant; the contrast between which and their own, will do more to urge them forward to do likewise, than all the agricultural papers in the world; for them they never read.

Three miles from Woodburn, is the village or rather settlement of "Bunker hill;" where I found a monument as noble and enduring as that which overlooks the city of Boston. It is a monument of industry, enterprise and yankee perseverance that has within a few short years converted a wide tract of rich rolling prairie, although not very convenient to timber or mills, into one of the most flourishing communities and highly improved farms that I have seen in the State. The location is undoubtedly a healthy one, well watered and good, but stock water upon the surface, I judge not so. There is more grass, more fruit trees, more barns, more good houses, more scholars at school, and more readers of agricultural papers in this eight year old settlement, than there is in some of the oldest settlements in the State, where the population is double.

I took dinner with Moses True, who is a worthy follower of his great namesake, in regard to perseverance, and whom I wish I could induce some thousands of his fellow-citizens to take as a pattern of the TRUE way to acquire a comfortable independence in the cultivation of the soil. He showed me a flock of 200 wedder sheep fattening for the St. Louis market, 40 miles distant. He intends fattening about this number every year, as he finds it one of the most profitable of his farming operations. His flock consists of about 800 at this time. I have also noticed several other flocks to-day, and also a disease called the sore mouth, which is affecting several flocks. If you will publish a cure if known, it will oblige many in this part of the country. In the course of a two hours drive after leaving this place, where every thing looked as though created but yesterday, one might suppose that he had indulged in an unconscious nap, and awakened in "the old settlements," so great is the change. For here we are amid old buildings, old farms and orchards of old trees, one of which, containing 1200 bearing trees, (owned by Gershom Flagg, Esq., brother of your Comptroller of State,) upon a large and excellent farm in Madison county, 30 miles from St. Louis, where he has resided 27 years, 25 of which in the same log cabins, which are his castles still, and in which I met a kind of welcome not to be measured by outside appearances. He has about 500 acres in cultivation, and is still adding more; and keeps about 100 head of cattle, with horses and hogs to match. His orchard of excellent grafted fruit brings him in some \$2,000 a year, most of the fruit of which he sends to New-Orleans. He keeps 10 or 15 yokes of steers at work, which, as soon as he gets well broke, are offered for sale, and bring remunerating prices. He is reputed so, and is undoubtedly rich, and I will also add, proud. But it is proud of living so long in a house that has been of so little expense to him. All of his out-buildings, and they are very extensive and convenient, are of the same primitive description. Indeed, he says that he has never used a brick or shingle upon the place, but if I may judge from appearances, he is now preparing to do so shortly. He is not waiting for sledding. Every thing around him is on the go-ahead principle, except the house, and that is going to decay. And when we look abroad over the towns, cities and farms extending hundreds of miles away to the north, and think that this very house when built, was the "frontier settlement," the very outpost of civilization, it is easy to imagine that it is time for it to pass away. At the time Mr. Flagg settled here, he was looked upon by his neighbors in the "thick woods," as little better than a crazy man to undertake to cultivate the prairie, when it was evident it would not produce crops, otherwise it would have produced timber.

Over a rough uncultivated tract, mostly timbered, I went to the somewhat famous town of Alton, or rather towns, for there are three of them, Upper, Middle and Lower; and all covering as rough and uneven a surface, extending up mountain sides, and back a mile or more over other mountain sides, from the river, that part being Upper Alton. Here is the college, several good churches and fine dwellings, but no mercantile business. Middle town is a collection of good dwellings, mostly occupied by men doing business in the lower town. Here I noticed a dwelling surrounded with a garden in high cultivation, a plain indication of the owner's mind, who I found on acquaintance, though engaged in other pursuits, highly interested in agricultural improvement, and whose name, Moses G. Atwood, will call to the mind of Mr. Tucker, reminiscences of the days when they were both sticking type away down in New-Hampshire.

At the lower town is the Illinois penitentiary, several fine churches, one busy business street—there is no room for a second one—and a tavern, the Franklin House, that is worthy of patronage. From

Alton to St. Louis is 25 miles, down the far famed American bottom—an immense tract of land that was covered, and in some places greatly injured, by the great flood. But it never was under that kind of a state of cultivation which would satisfy any man who had an aspiration above a "hog and hominy" kind of existence, and was willing to have the "shakes" half the year, for permission even to enjoy that much. I believe I met with a fair sample of half of the inhabitants, in an individual who had lived upon the same farm 40 years, and has not an acre of grass or fruit tree in the world, but can brag of raising more and bigger corn than all the rest of creation, "Old Kaintuck" included.

I asked him why he did not raise grass? "Well, he did sometimes think on't—and he tried it about 30 years ago, but it didn't do well." And why don't you set an orchard? "Well, I reckon may be I will some day—did set out a few trees once, and they grew powerfully, but the cattle soon destroyed 'em." And no wonder, for they were set in "the big field," the eternal corn field. Fences are much swept away, and probably the barns with them, for they are not to be seen now, although the little old miserable dwellings, like the owners, hang on. The land in many places is much grown over with bushes, mostly crab-apple, which abound by the million. The bottom is nine miles wide, and is bounded on the east by a very high clay bluff, that bears evident marks high up its face, that here once run a mighty current. There are also many mounds upon the bottom that show the same appearance, and that the stream gradually wore down this immense mass of clay to the present level.

During the flood, the ferry was nine miles wide; now less than a ninth of that, which I crossed upon the 22d of January, 1845, on a steam ferry boat, and upon a beautiful sunny day as we need wish for in May. The two boats at this ferry are almost constantly crowded with produce and market wagons from 60 or 70 miles back in Illinois, coming to St. Louis. The old part of this city was built upon an abrupt rocky bank, and in addition to its outward wall, many of the old Spanish houses were separately walled in like a strong fortification. Some vestiges of these, and the old Spanish houses, still remain, but are fast giving way to the spirit of improvement, every where visible. But the town suffers one monstrous inconvenience in the narrowness of the streets. Some of the main business streets being barely wide enough to allow two wagons to pass. It is a place of immense business, constantly on the increase. The lead and fur traders alone employing great capital, and the vast agricultural country above, that draws its supplies through this place, create a vast trade.

The land around the city is not under good improvement; which is probably owing to the want of good title: much of it being an old Spanish grant for a public common. All the land between the city and Jefferson Barracks, and even below, is in the same condition, being claimed as a common of the town of Carondelet, a little miserable collection of old Spanish or older French houses, a few miles below St. Louis, and is one of the oldest French towns in the west. This common land remains unsettled, and the timber having been cut off, is now grown up to bushes; and in the vicinity of such a city has a very unsightly appearance. Jefferson Barracks, by the expenditure of a few wagon loads of Uncle Sam's money, has been made a beautiful spot amid this wilderness of Spanish spoliation and French frivolity, both of which classes had rather live on frogs and tobacco, and spend their time in drinking and dancing, than in growing rich by the cultivation of the earth.

The old Spanish and French citizens in St. Louis, for a long time successfully resisted the spirit of improvement that pulls down to build up; and the old grants of land to this class of citizens, some of which are still unsettled, have been a great detriment to the improvement of this part of the State of Missouri.

From St. Louis to the Merrimac river, 18 miles, the road lies over a succession of clayey hills, and for 14 miles after leaving the city, scarcely any improvements, and them but poor. Soon after crossing this stream, we begin to enter the great mining district of Missouri, and find ourselves climbing rocky mountain sides, picking our way along some mountain stream that winds between high precipices of perpendicular rocks. Oh what a change. What a contrast from the boundless and comparatively level prairie, where the eye found no limit but the horizon, to this pent up prison of rocky grandeur.

The prairie land behind me lies,

That boundless realm of grass and hay.

The mountain rocks before me rise,

With nought to cheer my toilsome way.

Yes, I have something to cheer me on my way; and that is, that what I see and take note of, may give pleasure to those, who in imagination, accompany on his tour, their old friend,

SOLON ROBINSON.

#### SWAMP WILLOW—BASKET WILLOW. *Salix discolor—Salix viminalis.*)

"Some trees their birth to bounteous nature owe;  
For some without the pains of planting grow.  
With osiers thus the banks of brooks abound,  
Sprung from the wat'ry genius of the ground;  
From the same principles, gray willows come,  
Herculean poplars and the tender broom."

[Dryden's Virgil, Georgic 2d.]

Permit me, Mr. Editor, to resume the subject of the Willow, commenced in the April number of the Cultivator (for 1844, page 125.) My attention was called to it by the suggestion of Mr. William Partridge of New-York, one of your correspondents.

In my former communication, it was shown that the native and foreign willows were cultivated and manufactured in this country to a considerable extent and that the wild and uncultivated article was also collected and applied to useful purposes.

Many persons are employed in the domestic fabrication of willow-baskets and other willow-ware, while a few only are engaged in

cultivating it. It is a business that may be increased to an indefinite extent, and give employment to many an industrious person. When the art of making baskets from willow, is once acquired, it requires but a small capital to commence the trade. With a few tools, a few bundles of willow, and a small space to work in, an individual may easily undertake to work on his own account. The most expensive apparatus would probably be a tight box to soak the willow in, that it may be easily bent and twisted in the manipulation of the art, and another box with a tight lid or cover to bleach the manufactured articles. The bleaching is effected by subjecting them to the fumes of burning sulphur, a small portion of which is put in an earthen pot and placed in the bottom of the box, and the lid closed to prevent the escape of the sulphurous acid which is formed by the slow combustion of the sulphur, and which whitens the willow.

In the conversion of willow into articles of utility, we have an art, a trade, or domestic manufacture, which deserves encouragement, because it may be carried on in the small way, and be of use we have abundance of the raw material growing wild, which may be collected at little expense, or may be propagated by cuttings, in waste swampy lands, without interfering with any other trade or employment. That the art of basket-making is not difficult to acquire, we have the evidence presented at the late Fair of the State Agricultural Society at Poughkeepsie, (Sept. 1844.) where a number of articles of basket-work, made of American willow by the pupils of the New-York Institution for the Blind, were exhibited. Had there been any other articles of the kind offered for a premium, those made by the Blind would have advantageously compared with them in beauty of finish and workmanship.

They were entered in the name of the "New-York Institution for the Blind," by Mr. George Horn, teacher of basket-making, as the work of the following boys, pupils of the Institution:

1 Fishing basket,.....	made by J. Collins.
1 Chair,.....	Chas. O'Connor.
1 Nest of knife baskets,.....	" James Dowd.
1 Nest of market baskets,.....	" Alfred Holmes.
3 Clothes baskets,.....	" Wm. Dunlap.
2 Toy wagons,.....	" Thomas Murphy.
1 Foul clothes basket,.....	"
1 Bandbox basket,.....	"

These were all declared by Mr. Horn, to have been made entirely by blind boys, and of American Willow. We are informed by one of the Committee on Discretionary premiums, that the articles arrived towards the last of the Fair, and when the Committee were about closing their report, and that as there was no competition, one dollar was awarded to each of the above named pupils as an encouragement to them, to persevere in an employment which promises to be so useful to them, and is so creditable to the Institution where they are taught.

Seeing these articles at the Fair, led us to make some further inquiries about willow and the willow-basket business as carried on at the Institution for the Blind in the city of New-York. We were informed that one of the trustees or managers of that charity, was many years since impressed with the conviction that American willow might be advantageously employed in making baskets and other willow-ware. In August, 1834, he was on a visit to Mr. John R. Stuyvesant of Hyde Park in Dutchess county, and he observed a quantity of the native willow growing wild in a piece of wet ground on the farm of that gentleman. He amused himself by cutting and peeling the bark of the long and slim sprouts, until he had collected two bundles, and sent them as a present to the Blind Institution for trial, through Mr. Stuyvesant, who was at that time one of the Board of Managers. Two large baskets were made of the said willow and sent to Poughkeepsie to show that we had the raw material for a new and useful employment. But the teacher of basket-work at that time in the Institution, (Wm. Murray, himself blind,) stated that the willow was good, as to length, smoothness, and uniformity in its taper, but brittle, on account of being cut in the wrong time of the year. It should be cut, he said, in March or April. This agrees with the fact as stated in our former communication, and as practiced on Staten Island by Mr. Reed, Mr. Leveridge and others who cultivate the native and imported varieties.

When one undertakes to investigate a subject, one fact leads to another. So when we were made acquainted with the above, we were presented with a series of the annual reports of the New-York Institution for the Blind, from which, and one of the managers, we have drawn the following information in relation to the manufacture of willow.

In the early stage of the Institution, under the superintendence of Dr. John D. Russ, the first attempt in working with willow, was in covering bottles and demijohns without assistance or previous instruction. The ingenuity and contrivance of the superintendent was partially successful, but slow in its operation. A basket maker in the suburbs of the city was then consulted, and he agreed to give the blind inmates of the Institution, instruction in the art, a portion of a day three times a week. He came at the appointed time, but declined the undertaking, alledging that he would be mobbed by the trade if he should comply with the proposition.

Mr. Windle of Maiden-Lane in New-York, who deals largely in wooden-ware, willow-baskets and house furnishing articles, informed Dr. Russ, that his only chance to obtain the requisite knowledge, was by engaging some foreign artist soon after his arrival, and before he had become connected with others of the trade.

Such a person was subsequently engaged, together with his wife. They were adepts in making fine work of split willow, which would come in competition with the fine baskets imported from France. Although they were engaged at high wages, they remained but a short time, being induced to quit their employment and instruction of the blind, for a promise of still higher wages in another part of the country. They afterwards returned to New-York, and expressed regret at having relinquished their first engagement, as they were not fairly dealt with by those who enticed them away; but the Institution was otherwise supplied in the art of basket-making, and the



could not be re-engaged. This information is not in any of the published reports, and is preliminary to understanding some of the following extracts, from which we shall see the progress of the willow basket manufactory, at the New-York Blind Institution.

Their first annual report to the Legislature for the year 1836, informs us (p. 5,) that

"The managers finding much difficulty in establishing mechanical employments, in the early part of the year wrote to Edinburgh, and engaged a competent instructor, who arrived the latter part of October 1833, and enabled them to undertake the manufacture of mats, mattresses and willow baskets."

In December following, there was an exhibition and exercises by the blind at the City Hotel in Broadway, at which was made the following statement:

"In the mechanical department, the managers after trials and difficulties of various kinds, have the pleasure to announce that they are now well supplied with a conductor in the efficient services of Wm. Murray, a young man who is himself blind, and who knows how to bear with patience the awkwardness of beginners in acquiring those trades to which he has been brought up in the school for the Blind in Edinburgh, and a knowledge of which he can impart to others in his own condition. This acquisition is the result of a correspondence with the directors of that Institution in Scotland. Murray arrived a few weeks since, and he has already given practical demonstration of his ability in making baskets, mats and mattresses, specimens of which may here (at the City Hotel, New-York, Dec. 1833,) be seen, made by him, and the pupils under his direction."—(1st Annual Report, p. 7.)

In tracing the progress of the mechanical department of the Institution for the Blind, we learn that the articles manufactured and sold there in 1836, amounted to \$1,295.58, of which \$444.56 were for willow-baskets, (Report, p. 15,) and that there was on hand at the end of the year a considerable amount of basket-work finished, together with 120 bundles of foreign willow, which cost one dollar per bundle.

The business of basket-making having become firmly established at the Institution, the committee on manufactures reported at the close of the year 1838, that there had been made during the year, 1722 baskets, and numerous chairs, cradles, band-boxes, &c., and that they had on hand 675 bundles of willow as a stock of raw materials for the ensuing year. The committee say, that

"In the manufacturing of these articles, the committee have been guided solely by the good of the pupils and the Institution, as they cost less to get up, and when done, find a ready sale. The pupils are very anxious to become proficient in this manufacture, as they know when the time arrives for them to leave the Institution, they can, if proficient, start the willow-basket business with only a few bundles of that article, and can make for themselves a good and comfortable living. The articles manufactured in this department will compete with those made by workmen not deprived of sight."—(3d Report p. 20.)

In the sixth annual report it is stated (p. 18) that, "Two male pupils lately (that is in the latter part of 1841) left the Institution and removed to New-Orleans, and two others to Chenango county in this State, with the intention of manufacturing willow-work; they understand the business thoroughly and will be enabled to earn their own living."

In our former communication on this subject, it was shown that large quantities of willow raised in France and Holland were imported into this country, while we have it growing wild in abundance, that it may be, and has been cultivated by a few, together with several varieties of foreign growth. The manufacture of willow was also stated to be of two kinds, one made of fine split willow, and one made of the willow twigs without splitting—that the fabrication of fine willow-ware was in the hands of foreign artists and was wholly imported; while our own artisans could produce as good, but from cheap labor in Europe, and defrauding the revenue as is believed on importing the articles, our countrymen could not compete with them, and that accordingly they had the control of the market in the sale of fine and fancy willow-ware. But on the other hand, Americans have the domestic market to themselves, for large and coarse willow fabrics, because on account of lightness and bulk, they cannot be imported.

In this essay it will be seen that the blind even, can be taught to work correctly and profitably at this business, that it is a trade of extensive usefulness and great magnitude, that the raw material is abundant and may be improved by cultivation, and foreign varieties added to our native stock, and while we are cultivating willow, those so engaged are benefitting themselves and improving the country, because swampy lands and peat bogs when drained, are the places where willows grow most luxuriantly.

Now I would ask, ought our own countrymen to be excluded from their own markets in the manufacture of fine split willow? For one, I should be for imposing such duties as to give them protection against the introduction of fine willow-ware. Independent of political considerations they ought to have it, because the art is truly a manufacture, every thing is done by hand, and cannot be done by machinery, and the business must be pursued by individuals, and cannot be monopolised by large companies. By encouraging the manufacture of willows, we invite the farmer to a new article of culture, and the conversion of swamps into willow groves, which will give profits equal if not superior to uplands, and at the same time improve and render healthful such swamps and low lands, which before produced agues and fevers, and their train of evils.

In our former communication, we omitted to mention that great numbers of square willow baskets with lids, are made in New-Jersey and filled with bottles of fine Newark cider, marked and sold in New-York as foreign champagne.

If any person should be desirous of commencing a plantation of willows, it may here be repeated that March or April would be the time to transplant them, and that Mr. John Reed, who lives in the township of Southfield on Staten Island, about five miles south-west

of the Quarantine establishment, can furnish cuttings of the best foreign varieties, or those of indigenous growth improved by cultivation.

RICHMOND.

Oakland Farm, Staten Island, Nov. 4th, 1844.

#### FLAX CULTURE FOR THE SEED,

*And for seed and lint—its effect on the soil as preparatory for a wheat crop—Flax Mill—Flax pulling Machine, &c.*

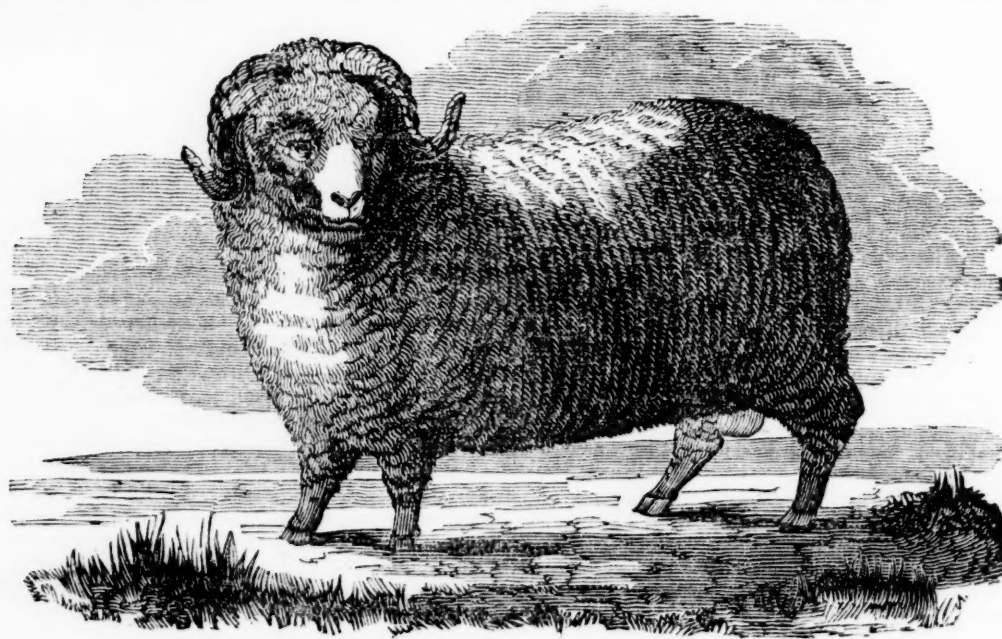
EDITOR CULTIVATOR—The culture of flax for the seed only, has been found to be a very profitable branch of rural economy in Seneca County. Flax culture on our clay loams, has the effect to keep the soil loose and porous, so that after the flax is gathered, the stubble needs only half the working necessary to fit an ordinary fallow for wheat. It is the opinion of many sensible farmers, who do not on that account, grow flax, that a flax crop immediately followed by wheat, is too exhausting to the soil for economical husbandry; *per contra*, it is stoutly maintained by others who have successfully grown wheat after flax, that if the soil has not been previously too much worn, wheat will succeed better after flax, than on the summer fallow. It is true that the gluten of the stem and seed of flax, presupposes a great assimilation of azotized matter; but the action of the roots of the flax plant on a tenacious soil, seems designed by nature to fit that soil for the reception of ammonia, for which we are told allumina has a great affinity; thus nature has given to that plant which requires much nitrogen, the mechanical structure of root, to fit the soil to absorb the constituents of nitrogen and carbon from the atmosphere. The quantum of inorganic matter taken by flax from the soil, (not having seen the analysis,) I am unable to determine; but it is well known that of all the cereal grains, wheat contains by far the greatest portion of these substances, its straw alone yielding nearly four times as much ashes as the straw of oats, and twice as much as that of barley. Hence, may we not infer that it is to the previous exhaustion in the soil of its wheat forming pabulum by previous wheat crops, and not to the alternation of an occasional flax crop, that the wheat product is deteriorated.

About four years ago, a mill for breaking and dressing flax was erected in this village, (Waterloo.) The enterprising proprietor, Mr. Gardner Wood, has induced many farmers to pull their flax, and to dew rot and save the lint; instead of pursuing the old course of cutting up the flax with the scythe, and appropriating the seed only. To encourage a more general pulling of the flax in order to save the lint, Mr. Wood has procured from the patentee in New-Jersey, a flax pulling machine. It is of wood and iron on low wheels, about the bulk of a small wagon, cost \$90, with the right to use it. With the help of this machine, four men have pulled and bunched sixteen acres of flax in four days; but as the machine requires some mechanical tact, and can only be used on a smooth surface, most of the flax intended for dressing, is still pulled by hand.

The success of the Seneca county farmers in making a flax crop a succedaneum for the sun stricken fallow, has induced many farmers in the neighboring counties to adopt its culture. In the town of Hannibal, Oswego Co. a flax dressing mill has just been erected, which will dress this season about 20,000 lbs. of clean flax. Mr. C. Gifford, of the same town, has grown the past season on five acres of land, 58½ bushels of seed, and 1,750 lbs. of dressed flax; the flax netted him 5 cts. a lb., the seed 9 shillings a bushel. A. Taber, of Ira, Cayuga County, has harvested the past season, 18½ bushels of seed to the acre on nine acres; the lint of the same yielded about 2,500 lbs. of clean flax, worth at tide water, nine cents a lb. The land on which the above crops were grown, was Indian corn stubble, plowed once in the spring, harrowed and sowed late in April, with three pecks of seed to the acre, and harvested as soon as the balls began to change color, which, last season, was about the 20th of July, two weeks earlier than in ordinary seasons. The field of Mr. Taber had never received any animal manures; it was on one of those all fertile alluvial ridges of finely divided matter, so common to the gravelly or rather pebbly loams of the north part of Cayuga, Seneca, and the south division of Wayne county.

S. W.

Waterloo, Seneca Co. N. Y., Feb. 21, 1845.



MERINO BUCK "DON HARDY."—(Fig. 39.)

DESULTORY SKETCHES OF SHEEP HUSBANDRY  
IN MAINE.—No. I.

MR. EDITOR—Little was done in regard to the rearing of sheep in Maine, except a few of the common breeds, kept by some farmers for mutton, and to supply what wool was needed for household manufacture, until the war between England and the United States, which took place in 1812.

It was, however, early discovered that the climate, though rigorous in the winter, was nevertheless favorable to the breeding and multiplying this useful animal. The war of 1812 brought about a radical change in this branch of farm industry among us; and I have sometimes thought that setting aside the misery and aggravated wretchedness which war always produces, if no other benefit was derived from the struggle, the impulse given to wool-growing, and the more general introduction of Merino sheep throughout the country, together with the improvement of manufactures, was an ample equivalent for all the treasures expended. The total prohibition of the importation of English manufactures which it effected, brought about in the short space of three years, more changes in favor of our then infant manufactures, and discovered to ourselves more resources, both natural and mental, than could have been accomplished by any other means. It is true that a speculating mania in Merino sheep, which sprung up about that time proved somewhat disastrous to many who were lured into it more by the hope of realising a fortune by the rise of prices than from any desire of the multiplying of flocks. But this was only one of the evils which often attends the introduction of valuable improvements, when the true objects are perverted. Those who purchased at high prices, with a view of going into the business as a permanent pursuit, ultimately realized a profit from the investment, and many are still reaping the benefit of their purchases. A friend of ours gave forty dollars for a buck lamb that had just been dropped, brought it home and reared it as a cosset. It made a noble sire of a noble flock. A farmer, who now has an excellent flock of fine woolled sheep, told us that he began by giving *one hundred dollars* for an old sheep that had hardly a tooth in her head, but she lived, by extra care, long enough to lay the foundation of an excellent flock, which has been a source of profit to him for many years.

As early as 1813, a few farmers in Winthrop, among whom were Messrs. S. & E. Wood, Mr. Pullen and Dr. Snell, met together to discuss the question of the introduction of Merino sheep into Maine. There were but two questions to settle.

1st. Will the climate suit them?

2d. Will it be a profitable investment?

After a careful deliberation, they concluded to try the experiment, and accordingly made, what at that day was considered a large purchase from the flock of Consul Jarvis, who had then recently settled in Weathersfield, Vt. The first purchase was made in 1813, and consisted of forty lambs, for which they paid *twelve dollars and a half* per head. The next purchase was made in 1814, and consisted of forty lambs, for which they paid *twenty-five dollars* per head, and the next purchase was made in 1815, and consisted likewise of forty lambs, for which they paid *fifty dollars* per head, showing a pretty steady increase of prices. Wool at this time, of the quality which these sheep afforded, brought *two dollars* per lb. The increase of the flocks, and the peace of 1815, put an end to the high prices; and many, who, as I before said, had entered into the business merely for the purposes of speculation, gave up the pursuit, and after cursing the harmless Merino as the cause of their misfortunes, turned their attention to other business.

The enterprise and example of Mr. Jarvis, was not lost upon those whom we have mentioned. His and their experiments, demonstrated the fact, that the climate of north New-England was suitable for the cultivation of fine woolled sheep.

The cold, but dry and bracing air of our winters, is found much more congenial to the Merino, than the more open and changeable winters further south; and it is proved by actual experience that they do vastly better in dry, cold, than in a wet or rainy climate.

This was peculiarly illustrated here during the last winter, which, for a part of its term, was unparalleled for the severity of its cold—the thermometer sometimes ranging as low as 37 deg. below zero. It was comparatively a dry winter, the storms being principally snow-storms, and there fell but little rain. In the spring, the snow went off gradually by the heat of the sun. Notwithstanding the severity of the winter, sheep, and especially the Merino, seldom have done better. We noticed very particularly the several flocks which we passed in our drives about the country in the spring, and were forcibly struck with their general health and good condition. The winters of 1829-30-31, were what might, with propriety, be called open winters. Much rain fell during those seasons, and the mortality among the sheep is too well remembered by many of our farmers. Several of our acquaintances, discouraged by their losses, gave up the wool-growing business entirely.

Allow me to say here, by way of digression, that I think our brethren of Illinois, who are just entering so zealously into the wool-growing enterprise, will find their open rainy winters the greatest enemy to the flocks



which they have lately introduced, and I would respectfully caution them to be sure and have shelters for them to flee to during a "stress of weather."

Sheep should certainly be sheltered during cold rain-storms, as these are found to be much more deleterious to them than snow-storms. The former drenches their wool and chills them. They become completely "water-logged," as a sailor would say, and it takes them a long time to get dry again, but a snow-storm does not so effect them. Drifting snows may bury them up and smother them, but they do not chill them so thoroughly, nor bring on so many diseases of different kinds as cold rains do.

The summers in Maine are generally clear and fine, and the situation and face of the country are such that the heat of our longest days is tempered by cooling and refreshing breezes, which invigorate instead of relaxing. No better pasturage can be found in the known world for sheep, not even in old Spain itself, than are found in the highlands of the interior of Maine. The ranges of hills and mountain tracks which traverse the State, afford cool and airy walks peculiarly adapted to the nature of this animal, and they seem to delight in climbing over their tops and roaming along their sides in pursuit of the herbage and shrubbery of which they are naturally so fond.

Hence, but very little care or attention is bestowed upon our sheep in the summer. The principal object being to get a pasture for them of the kind best suited to their natures, and occasionally giving them a little salt.

As we have before observed, the peace which took place in 1815, put an end to the great profits which were realized by Merinoes and many who had large flocks and others who were commencing sold them to the butchers, and relinquished the business. A few however, knowing the intrinsic value of the animal, have persevered in the breeding of them, and although perhaps no single branch of husbandry has been subject to so many fluctuations for the last thirty years, yet we believe that, by taking an average of costs and profit during that period, they have been full as profitable (if not more so,) as any other species of farm stock.

The breeds which are now found in Maine, are the Merino, including the Saxon variety, the South Down, the Dishley and the Native. While making this enumeration, truth compels me to say that there are but few flocks which can be considered really of pure blood. We will however speak of them in the order we have named them.

1. *Merino*. The Merinoes first introduced were principally of the Paular variety, though some of the other varieties were occasionally found. They were much better in form, and of course, constitution, than many that are now found here. The causes of this deterioration are—1st. A want of attention in breeding. Every thing and any thing in the form of a Merino were kept for this purpose, and a long course of *in and in* breeding, reduced the once good shape to a thin breasted, flat ribbed, hump-backed race. 2d. An unfortunate cross with some inferior Saxony blood, introduced about the years 1825–6 helped to deteriorate many flocks. With one or two exceptions, the Saxony bucks introduced among our Merinoes, were ill-shaped animals, and instead of benefiting the Merinoes, they very much injured them. It is true they made the staple a little more fine and soft, but they proved to be poor nurses and destitute of that robust constitution which insures a profitable flock. A few farmers, instead of adopting the haphazard course, have pursued a regular system and avoided the evils arising from what may be called an incestuous intercourse. They have taken the utmost care in selecting and preserving the best of their sheep, and instead of condemning the whole Merino race as weak and worthless, unsuited to our climate, have improved them very much, and are in possession of as good flocks as can be found in America. Among those of our acquaintance who have pursued this rational course, I would mention Elijah Barrell, Esq. of Greene, Elijah Wood, Esq. Truxton Wood, Oaks Howard and Nathan Foster of Winthrop, Amasa Tinkham, Esq. of Monmouth, Capt. Geo. Williamson of Pittston, Jesse Wadsworth, of E. Livermore, Moses Taber of Vassalboro. Mr. Rial Gleason of Farmington, has a large

flock, principally of Saxon blood. Hon. Judge Hayes of S. Berwick, has Saxones of his own importation. Many others have large and valuable flocks, but the foregoing I am more or less acquainted with.

Messrs. Wood, Foster, Taber and Williamson, have recently made purchases in Vermont of lambs descended from Mr. Jewett's ram Fortune, which, though mocked at by some as not being an exactly *simon pure* Paular, will nevertheless bear the ordeal of the curious and critical in *stock heraldry*. He is certainly a remarkable animal himself, and transmits his good points and qualities singularly well to his posterity.

The average weight of the Merino fleece in Maine, is three pounds; but there are flocks that come up to four pounds and more. They are however, not very plenty.

Among the flocks of the few who have paid proper attention to the improvement of Merinoes, are to be found some fine specimens. The cut at the head of this article is a portrait of "Don Hardy," a full blood Merino buck, six years old, bred by Moses Taber of Vassalboro. He is an excellent animal and combines as many good points as any other buck. He weighed on the first of June last with his fleece on, 140 pounds. He was sheared soon after, and yielded ten pounds of well washed wool. The staple is long and of excellent quality. His height at the time he was weighed, was two feet three inches. Girth (wool being on,) four feet.

The cut represents him straighter under the belly than he actually is, and his muzzle or nose is rather too large.

We have seen in Mr. Williamson's flock, in Pittston, a variety of Merino, that were polled or hornless, and had uncommonly small ears, supposed by some to be of Sax-on origin, the fleece of very fine staple, not so gummy as the common variety, and the form excellent. I will obtain a more particular history of this variety, and tell you more about it in my next. Respectfully yours,

Winthrop, Feb. 1845.

E. HOLMES.

#### A PRODUCTIVE FARM.

MR. TUCKER—I am doing a little in the way of farming, my time being occupied almost entirely in my professional duties. I cultivate 25 acres of land, keep two horses and 4 cows; raise all my beef and pork, with plenty of poultry and eggs; keep the variety of fowls called the Italian or perpetual layers; they certainly exceed any thing I ever had for eggs. If I was furnished with a cellar, which in my location cannot be had, I believe they would lay as well in winter as summer. I feed with all kinds of grain, with animal food and lime. The past year I raised 500 bushels ears of corn, with a sufficient supply of broom corn for family use—70 bu. oats—40 bu. wheat—150 bu. potatoes—75 bu. sugar beet and turneps—5 bu. winter beans—4 bu. clover seed—plenty of provender for my stock, and 3 or 4 tons of hay for sale; pumpkins, squashes, &c. in abundance. My practice is to have a good supply of milk and butter all the year, winter and summer, by the use of the sugar beet in winter; an abundant supply of apples of the best quality; a large garden and vegetable patch, supplying abundance of grapes, strawberries, raspberries, currants, and garden vegetables, with cherries, quinces, peaches, &c.

I find it quite important to attend carefully to the manufacturing of manure. The best manner I have found is to keep my yards and pens well supplied with muck, scraping of ditches, sods and the like, to catch and retain all the leach and urine.

Much has been said on the manufacture of poudrette. My practice is to have a good sink under my privy, with a heap of muck or something of the kind laying near; into this sink I cause to be cast all the soap suds, &c. from the house, and occasionally throw in some of the dirt. Once a year clean it out, with no inconvenience whatever. In this way I have 8 or ten cart loads of the best material for top dressing for any crop. My coarse manure from the horse stable, I throw into the pig pen, thus increasing its value nearly one-half. I stable my cows carefully during the winter.

You will perceive my doing is in a small way, but I go on the principle of doing well what I undertake. I have always practiced deep plowing, with decided bene-

fit. Many years before I saw an agricultural paper, I employed one of my neighbors to plow the first acre I ever owned, and miserably poor it was. I urged him to put in the plow. Said he, "you will ruin your land." My answer was, it is now good for nothing on the top—if it is any better below, I will have it up. The consequence is, that now, with the little care I have taken, I have a lot with deep soil, that will grow any crop I put on it. I have done much at blind ditches filled with stones, thus reclaiming many spots that were before useless. I have never used the sub-soil plow, but have a high opinion of it; I intend to try it this season if I can. Mine is a hard retentive clay subsoil, which doubtless would be much benefited by being broken up.

C. OSBORNE.

Westfield, Essex co., N. J., Feb. 5, 1845.

#### ROTATION OF CROPS.

MR. EDITOR—It is indeed a matter of astonishment, that at this day after so great improvements have been made in agriculture, and so much light thrown upon the subject by scientific men of almost every country, any should be found, who will not give assent to the doctrine of rotation; or who will not admit that a judicious system of alternation of crops should be adopted by every one who would cultivate the earth with success. Yet it is no less true than strange, that there are thousands who still cling to the old way of cropping their fields continually with the same kind of grain or plant, until they hardly make a return of the seed they have received. To such men, farming will prove to be a sinking business. These too, are the very men whom we always hear finding fault with their crops, and almost charging the Wise Dispenser of all things, as being less favorable with them than with some of their more wise and prudent neighbors. They do not once think, that they have violated the laws of nature, and placed every obstacle in the way of her performing her kind offices. The truth is, they have tired out the land. It has become exhausted of the specific food which the plant requires, and utterly refuses to produce. Such farmers may sow, but they cannot reap; and if they persist in this ruinous course, they must sooner or later feel the evils of an empty purse. No man ought to expect a return for his labor, unless he give back to the soil, in some form, a part at least, of what he takes from it. It is to obviate in a great measure the evils consequent upon the practice of taking all, and returning nothing to the land, that is proposed to be effected by the rotation system. We do not say, that none of those who follow the old and hackneyed path, have raised large crops, or been in a degree successful in the business of farming; on the contrary, we know that by heavy manuring and high cultivation, land may be made to produce one kind of grain, perhaps abundantly, for a number of years in succession. But we do say, that the soil cannot without great expense of labor and manure, produce two or three crops of a kind without a perceptible falling off in the product. Neither is it contended that manure can be dispensed with in the rotation system. But one manifest advantage which this system has over the other modes of cultivation is, it enables the farmer so to economise in the management and use of his manure, as that he may receive a two fold benefit from it. For instance, his manure may be applied in an unfermented state to roots and other hoed crops, and they receive their supply of nourishment from it, and at the same time it remains unimpaired for the use of the small grains that succeed. We will now proceed to state a few general principles on which this system is founded. And they are principles that are established by scientific investigations and experiments, and should be familiar to every one engaged in this most laudable pursuit.

And 1st. Soils, however fertile, or highly cultivated, will lose their productiveness, if continually cropped with the same kind of plant.

2d. The degree in which a plant impoverishes the soil, depends much on the amount of food it returns to it, in the decomposition of its stalks and roots that remain.

3d. One plant draws its nourishment from a depth in the ground, another from the surface.

4th. Some plants receive nearly all of their food from the earth, while others are fed almost wholly from the atmosphere.

5th. The cultivation of the small grains, renders the land foul; the hoed crops tend to free it from weeds.

6th. Those plants that are permitted to ripen their seeds, are great exhausters of the soil; while those that do not mature their seeds, exhaust it comparatively little. If these principles are founded in truth, they will serve us as a guide in arranging our different crops of grain, roots and grasses into a regular system of rotation. In making choice of crops to alternate with, care should be had to select those that are best adapted to the soil. In this, the judgment of the farmer will enable him to decide, as he is best acquainted with the nature of the land that he cultivates. It will also be an easy matter for him to determine which kind of plants should, and which should not succeed each other.

In conclusion, we would say that a system, whose operations conform so completely to nature's laws, and the effects of which are so well calculated to improve the soil, and the condition of the farmer, commends itself to the consideration of all. And it is to be hoped that this subject will receive that attention which its importance demands.

A SUBSCRIBER.

Livonia, N. Y., Feb. 1845.

#### SHEEP'S TAILS.

MR. EDITOR—In consequence of what was published in the 8th volume of the Cultivator, from Messrs. Morrell and Bliss, on the subject of sheep's tails, I determined to let my sheep wear theirs, till I satisfied myself whether Mr. Morrell's objections were real, or only imaginary. I had lived to see the fashion of maiming horses, hogs and dogs, in that way, become almost obsolete, and was not sure but docking sheep, might be dispensed with also; although I had many doubts on the subject. I remembered having read that naturalists insist that the works of the Creator are always perfect and peculiarly adapted to the purposes they are intended to subserve; still I could hardly believe, but that a long tailed sheep would always be dirty, and was sure they would look singular; but now after three years trial, I am fully satisfied that all the objections to long tails, are without foundation; and that the tail is not only useful, as it protects the tender parts it was designed to cover, from extreme cold or heat, but also ornamental, the animal not wanting a member, designed by nature for its comfort. I must say that although Mr. Bliss was called eccentric, for supposing a sheep should wear its tail, I think that without one, if it does not look absolutely vulgar, it does very ungenteel. I have now about three hundred long tailed ewes; and shall have all my flock so after my old stock is gone. If the tails are shorn before the sheep are turned to grass, there will be no more dirty ones, than if they had no tails; and the wool of course will pay more than four fold for shearing. Will not many try this humane experiment to satisfy themselves; at any rate, none should condemn it without a fair trial.

DANIEL S. CURTIS

Canaan Centre, Feb. 10, 1845.

#### ASHES—CORN AND POTATOES IN ALTERNATE ROWS.

EDITOR CULTIVATOR—I have the past season made some experiments with ashes and plaster on corn, but they were not conducted with sufficient accuracy, though they enable me to GUESS, to my own satisfaction, that the best way is to mix one part plaster to five of leached and unleached ashes, and apply a handful after the corn is above ground. On dry ground it produced the greatest effect.

I have planted corn and potatoes in alternate rows, and have guessed that I obtained almost as much corn as if every row was corn, and half as many potatoes. I wish some of your correspondents would try it. I have tried it in hills and drills. They will bear to be nearer together than if every row was corn. Yours, &c.

HENRY HULL.

Claverack, Columbia co., N. Y., 1st mo. 8th, 1845



### PLOWING.

THE season for commencing active operations in the field having arrived, it may not be out of place to submit a few remarks on the subject of plowing, as this is perhaps the most important operation in field culture, and one which should be performed with most care and attention. No amount of extra labor in the after culture can compensate for a defect in the plowing of the ground; and he is most certainly an improvident and unwise farmer who will allow his grounds to be imperfectly broken up in the preparation for a crop. We are aware that in submitting our views upon this subject, we shall be met by the remark so often made, that every body knows how to plow, and that no *directions* are needed upon this point. While it is freely admitted that every man can learn to plow well, it is by no means clear that all *do* thus perform this branch of their farm labor. Should we make this admission, we fear that in our rambles the great number of poorly plowed fields which may be found in nearly every neighborhood, would be constantly reproaching us with injustice, while we should get no thanks from the plowmen whose work we had so unjustly recommended. There has evidently been great improvement in this branch of farming in the last five years, more indeed than in ten or even twenty previous ones, but truth requires us to say that not one half of the land in this country is well plowed even in this age of improvement, and when public attention is directed to new methods in cultivating the soil as well as to improvements in the mechanic arts. Were we to look for the cause of improvement in plowing, we should undoubtedly be led in our investigations to the plowing matches which have in the last five years been held under the direction of different agricultural associations as the apparent cause of much of the improvement which is to be seen at the present day. The origin, the first cause of these improvements, may doubtless be traced to discussions and reflections which appeared many years ago in some of the agricultural journals. To no man are we more indebted for the impetus which has been given to this branch of agriculture than to Judge Buel. In this, as in all things pertaining to the interests of the farmer, he urged the necessity of advances towards perfection, and the skill which is now so often shown in the operations of the plowman, shows that the subject has gained much from investigation.

We would not be unmindful of the great aid which agriculture has received at the hands of mechanical genius, and in no branch of farm labor has science contributed in a greater degree to relieve both man and team from fatigue and toil. Had nothing more been done through the instrumentality of our agricultural societies than the improvements in the plow, their high aim would have been in no small degree accomplished, and farmers would be well repaid for all the time and money expended in their support. To the men who have contributed in so great a degree to improve farm implements our warmest thanks are justly due, and it is really gratifying to know that some of these men are receiving a patronage proportionate to their efforts at improvements.

In an article upon this subject, which was published in many of the agricultural papers some three years ago, we remarked that "any man of ordinary strength and good common sense can learn to plow well," and we are happy to see that a great number who at that time did not perform their work in a proper manner, are now among our best plowmen. We have seen no reason to change the opinion then expressed, although it would hardly do to reverse the proposition, and say that the man who does not thus perform his work is destitute of common sense. It may, however, with truth be said that he is blind to his own interests, and very little hope can be entertained that he will ever contribute his share to the common stock of agricultural knowledge.

We now beg leave to invite all our readers to accompany us to the field where we can witness the practical operations of the plowman, and where, unlike the mere theoretical speculations in the office or by the fire side, we can learn from actual demonstration the difference between good and bad plowing. Here is a field partly

plowed over, but it is not done exactly according to our notion, and we will try our hand at the work. Those furrows are too crooked, the soil is not all properly turned, and then you see one end of the land is finished while the other is a rod wide. The team must turn several times in the middle of the land before the work will be completed. Perhaps we shall not do the work better, but we'll try, and keep trying until we succeed. First let us have the plow in good order, the gauge-wheel properly adjusted, the mold-board bright and smooth, then give us the reins and set a stake yonder at the further end of the land and see if we don't make a straight furrow. There! fifty rods long and as straight as a line; no crooked places to spoil the work of the whole land. Now, we will turn another furrow, not on the first, but so the edges will just meet and continue to "back furrow," until our land is about half done, then go round the land, keeping every furrow perfectly straight, and straightening all the crooked places, so that one furrow will finish the whole length without turning. How much better this land looks than the one poorly done, and then how much more prospect of a good crop. Every inch of ground is broke, and every sod is turned, and the whole land presents a neat and workmanlike appearance. But we had forgotten to strike a furrow across each end of the field, about a rod from the fence, so that we may have ample room for the team to turn, while the ends of the furrows are even and uniform. The plow must not be suffered to cross this line until turned out of the ground.

Some of our readers may think it easier to give directions than to do the work. To such we can only say, call on us any day in plowing time, and we will endeavor to satisfy you that we know something of the use of the plow, and that we have spent more time between the plow-handles than in writing for publication.

Much might be said of the propriety of deep or shallow plowing, but as there is not room in this article we will only remark that in our judgment deep plowing on almost all soils is beneficial, especially after that portion of the subsoil turned to the surface has been some time exposed to the action of the frost and to the meliorating influences of the light, heat, &c. We do not consider it certain that the first crop is always benefited by deep plowing, but that the soil is permanently improved by such process there cannot, we think, be the slightest doubt. The subsoil plow is, however, the article best calculated to improve all our heavy and retentive soils, and it is hoped the time is not far distant when it will be in common use among farmers as much perhaps as the common plow. It may not, and probably will not, be found necessary to resort to deep stirring of the soil every year, but as often once in every course of crops, or every three or four years, great benefits would be derived from this operation.

Neither do we propose to discuss now to any extent the merits of a flat or lapped furrow, although much difference of opinion exists among farmers on this subject. It seems clear that on all wet or tenacious lands the furrow slice should be lapped; and we suppose the opinion also is generally held, that on dry and porous soils flat furrows are preferable. Of the correctness of this last proposition our own convictions are not very clear, and we continue on nearly all soils to lap the furrow slightly, thus exposing full one third more surface and leaving it in condition to be acted upon by the harrow with good effect.

That there has been very manifest improvement in the practice of farmers in plowing their grounds we have the best evidence in the fields every where presented to our view, in which the straight and handsomely turned furrows, the smooth and unbroken soil, and other evidences of skill and workmanship all prove that the spirit of inquiry and of improvement is abroad, and that a complete change in this department of agriculture is now taking place.

We have already alluded to the very great improvements in the manufacture of plows, and would again say that without this advantage our present state of cultivation would not have been reached. There are many good plows in use in different sections of the country, but the farmers are slow to adopt them in place of old

and imperfect implements. For illustration of this fact the writer would state that in the county where he resides there are probably some twelve or fifteen, or even more, different kinds of plows in use, not more than five or six of which are any where near up to the improvements of the age. Of this latter class the difference in principles of construction is so slight that there may, in fact, be said to be no more than three kinds in use which are really in accordance with the improved principles of construction. Could farmers see and know the advantages of using a good plow, in place of the poor ones so generally in use, they would at once discard four-fifths of the old patterns, and endeavor to use none but a good article.

The plowing matches at our State Fairs have been well attended, and much good work done, but there seems to be still room for improvement. I think I speak the sentiments of many plowmen in Oneida when I invite those who desire to see specimens of skill, or who may choose to try their hand with our boys at the plow, to attend the plowing match at Utica, in September next.

E. COMSTOCK.

Rome, March, 1845.

#### TRANSMUTATION OF GRAIN.

MR. EDITOR—We have fallen on portentous times. Patriotism and potatoes are threatened with extermination. What will take their places is hard to tell; and friend BRECK, in the leading article of the N. E. Farmer of November 20th, seems to entertain serious apprehensions of the probability of our wheat turning, not into *cheat*, but into "*oates*." This, though it would be a dreadful calamity with us western farmers, would not be quite so bad as utter extermination, especially since the "Rev. Lord Arthur Hervey," at the request of his "Lordship, the Marquis of Bristol," has headed Madame Nature, and obtained "*a little wheat*" from a "*handful of oats*." This wonderful, fortunate and timely discovery, it is to be hoped, may possibly prevent the entire extinction of the whole race of the precious grain.

It is difficult to treat this subject of the "transmutation of grain," with anything like gravity; but to be as serious as possible, if Mr. Breck will look at his Bible, he will find the very first chapter demolishes the doctrine, and blows it all to atoms.

But he says, "It is a subject upon which *sensible men* differ in opinion." True, it is. But does he consider that there are a great many kinds of *sensible men*, and a great many kinds of *sense* in the world? Some men are very sensible on some subjects, and mere dolts on others. Virgil, whose "*wordes*" Master Gerarde quotes to substantiate the doctrine of the "transmutation of one species into another in plants," was a very sensible poet. But if *sensible men* now-a-days were to adopt some of his whims respecting agriculture, the influences of the moon, management of bees, &c.; if they should escape an "indictment for heresy" they would certainly have to encounter the "world's dread laugh" as "*dreamers*." The plain deduction from Virgil's testimony is, that there were agricultural slovens in Italy then, as there are in other parts of the world now.

Were I a poet, and wished to immortalize the slovenly practices of many of our would-be farmers in imperishable verse, I would say,

On land where they some choice good wheat do sow,  
Not much but tares and worthless cheat do grow.

And I would account for the fact, in humble prose, without calling to my aid the ridiculous doctrine of the "transmutation of grain."

But Professor Lindley "virtually admits the doctrine may be true by recommending that experiments be tried to settle the question whether, *by any means, wheat, oats, barley and rye can be made to change into each other.*" Well, this is sufficiently ludicrous, and let us no longer wonder that *book farming* is laughed at, when such agricultural journals as the "London Gardener's Chronicle," and such men as Professor Lindley, the "learned botanist," seriously recommend that a "good many persons would try the experiment, in different parts of the country."

Now, I am nothing but a plain farmer, who never saw the inside of a college, or of a professor's laboratory, in my life, but if I were a learned professor, and had never been outside of a college or laboratory, and felt disposed to "astonish the natives" by announcing the discovery of some wonderful *vagaries*, and strange freaks of nature, in the "transmutation of grain," I would procure an ear of rye, and another of wheat, for example, and putting on a very wise and knowing look, I would triumphantly exhibit them to obstinate doubters, as exemplifications of the truth and reality of the doctrine of transmutation, and of what the "worthy Master Gerarde" saw with his *owne eyes*, in the *yeare* 1632, excepting that, as the world grows older the variation from nature is a little more remarkable and striking, for in the case of the rye, instead of "three or four *perfect oates* in the middle thereof," I find, what is still more extraordinary and astonishing, three or four perfect *vegetable oyster seeds*! And in the offspring of a perfect kernel of wheat I find, *O mirabile dictu!* a number of miniature *apples of Sodom*, filled with soot and ashes!

I said there are a great many kinds of sensible men in the world. Whether Master Gerarde, Lord Bristol, Rev. Lord Hervey, Professor Lindley, or friend Breck, are illustrations or not, I can refer to some, both dead and living, who are. The Rev. Mr. T., of A., Ct. was a good preacher, an erudite scholar, a *sensible* man, distinguished for urbanity and gentlemanly deportment. He married an excellent and wealthy lady. With her fortune he purchased a farm, built a handsome house on the Hartford and Norwich turnpike. He built also a good barn, *directly over a ravine*, which served as a sewer to let off the filth of his barn-yard, through a culvert across the road, and into Hop river, a few yards below. This was a specimen of one kind of *sensible* men.

When I lived in Connecticut, in addition to farming I carried on the cloth-dressing business. Mixed colors were becoming fashionable. Mr. K., since promoted to the bench, as associate judge, in the county of T———, in many respects a shrewd *sensible* man, brought a piece of cloth to my shop to be dressed, and wished it to be dyed a *mixed color*!

These, and hundreds of other examples which might be adduced, though they might be thought somewhat irrelevant to my subject, yet substantiate my position that *sensible men* sometimes blunder into the most ridiculous absurdities, as, I think, they always do when they blunder from nature's well defined paths, into the wild, theoretical, ideal road of *transmutation*.

And now let us think ourselves fortunate, since the experiments already made at the request of my Lord Bristol, and those likely to be made at the suggestion of Professor Lindley, the "learned botanist," are so well calculated to dissipate our fears and encourage our hopes, that, although nature may be fickle and inconstant, and change our *wheat* into *oates*, yet by the ingenuity of the shrewd Germans a plan has been hit upon by which her wild freaks may be counteracted, and the *oats changed back into wheat again!!*

J. TOWNSEND.

Zanesville, Ohio, December, 1844.

SCRATCHES IN HORSES.—Custom, the want of sufficient farm buildings, and it might be added, bad stable management, have caused us to accumulate our manure in the stables, cleaning them only when carrying out to the fields in the spring. In order to increase the value of the manure, I directed plaster of Paris to be sprinkled frequently upon it. "Does plaster hurt the horses' heels?" I inquired of the stable boy, on visiting the farm. "No, sir, it makes 'em better." "How so?" "They doesn't stomp now, sir." "What made them stomp before?" "I used to have to grease their heels two or three times every winter, for the heels was always raw; but I found they didn't stomp so much, so I looked at their heels and found they warnt raw now, like they used to be, sir." I hope soon to have a covering for the proper preservation of manure, but meanwhile must continue to use plaster.

S.

It is stated that out of 9,000 blind persons in the United States, only 400 are enjoying the benefit of instruction.



## HEREFORDS—SHORT HORNS—ELEGANT COTTAGE RESIDENCE.

MR. EDITOR—A day or two after the annual meeting of the State Agricultural Society in Albany, in January, I accepted the polite invitation of the proprietors to go and view the beautiful herd of Hereford cattle belonging to Messrs. CORNING and SOTHAM, at "Hereford Hall," about two miles out of Albany. I have visited this extraordinary herd several times before, and each successive visit has been attended with renewed interest. There are, including old and young, about *seventy* head of cattle; and it is no disparagement to the most prominent and valuable herds in the State, (and I have seen many of the most distinguished of them,) to say that I have seen nothing that can surpass this noble stock of Herefords, in appearance at least. Their rich and beautiful color—in most cases a deep mahogany red—their pure white faces, and remarkably bright and expressive eyes—the mild expression of their countenances—their handsomely curving horns—their elastic and sprightly step and majestic bearing, must at once strike the beholder with pleasing interest and enthusiastic admiration; and the perfect symmetry of their form, embracing almost every point of a faultless animal—the deep, full bosom, the round, compact, barrel body, the broad hip and full loins, the short and sinewy arm, neatly tapering below the knee, the brisket boldly prominent, and dewlap well cut up under the throat, the graceful neck, even with the line of the back, and in some instances finely arching, with upright and delicately turned horns—and, in almost every respect, they furnish a perfect beau ideal of *animal* beauty, such as it must do any man good to look at. There is "Matchless" and "Aston Beauty," and "Gay"—all truly "Gay" and "Matchless" "Beauties" in their line. I ought, of course, to think well of "Gay," for she is the mother of my favorite Hereford bull, "Don Quixotte," which I brought from Albany, with my little herd of improved animals, last fall. She is certainly a noble animal, possessing the purest of the "royal blood" of the "royal family" of Herefords, and cost, in England, as I am informed, some two or three years since, 200 guineas, (or \$1,000,) which, added to the expense of her importation, makes her stand *high*, at least in the estimation of her spirited importers, and is a pretty good evidence of her real worth. "Major," the grand-sire of "Don Quixotte," (and of which animal Mr. T. C. PETERS, writing from London, said—"There is no better in England; and it is no disparagement to our best breeders to say that he has not his superior in the Union") was purchased in England in 1841, by Messrs. Corning and Sotham, for 400 guineas, (or \$2,000,) but died on the passage to this country. They were fortunate, however, in securing one of his progeny—"Trojan," a splendid and most perfect animal, which they now have in all his "prime and glory"—and I congratulate myself as equally fortunate in being able to possess myself of one of "Trojan's" "most promising sons." "Sir George" is also a fine bull, and his progeny will run "neck-and-neck" with that of "Trojan" in point of excellence. But I must not forget to notice "Eliza," a half Hereford and half short horn cow, which Messrs. C. and S. are feeding for the butcher; she is already one of the finest specimens of a beef creature that I have ever seen walk on "all-fours"—not excepting Rust's celebrated fat ox. It would make an Englishman's mouth water to look at her.

But I must leave the further description of this noble herd of cattle to hands more competent to do it justice, with the single remark, that the Hon. ERASTUS CORNING, to whose liberality and enterprise (aided by the personal exertions and practical experience of Mr. Sotham, a thorough-bred English herdsman,) this country is so much indebted for the importation of this valuable stock, is deserving the lasting gratitude, not only, but the still more tangible reward of the friends of agricultural improvement throughout the country; and I doubt not they will ere long be awarded.

On my way home from Albany I stopped over a day at Auburn, and, in company with my friend W., I visited our agricultural friend, J. M. SHERWOOD, Esq., at his

beautiful cottage residence, in the suburbs of that lovely village; and before proceeding to a notice of his fine stock of Shorthorns, I must speak of his charming cottage, which was finished the last autumn. It is in the rural gothic order—a style which, above all others, I most admire for a rural residence. I may, perhaps, have regarded this with the more interest from the fact that I had commenced building on my farm, just before I left home, my "Rural home cottage," which is very similar in style, though somewhat of an improvement, as I think, upon his, in some of its outlines as well as details, and yet less expensive in the main. There is something in this style of architecture so appropriate in form and so picturesque in expression, when blended with rural scenery, that its effects must always be exceedingly pleasing to the eye of every person of taste. The jutting gables, with their ornamented tracery and pointed finials—the expressive dormer windows, breaking out of the roof, with their gothic-arch finish—the tall cluster chimney-tops, neatly ornamented—the pleasant veranda, and the pretty bay-window—all blend most harmoniously with the varied forms of the various kinds of trees and shrubbery that are indispensable in completing the beauty and comforts of a rural residence. And when these latter appendages shall have more fully developed themselves about the cottage and grounds of Col. Sherwood, his residence will present almost a perfect beau ideal of rural beauty and domestic comfort.

But what shall I say of the Colonel's noble herd of Durhams? They have so often been extolled, and have carried off so many prizes at our State shows, that any thing I can say about them may seem superfluous, and yet I cannot well avoid giving them a passing notice. The noble "Archer" stands at the head of the herd—still unrivalled in beauty of form and majestic bearing by any of his progeny; he carried off the first prize at the State fair at Syracuse, and I have always looked upon him as almost a perfect model of symmetry and beauty; and when I have alternately compared him with Mr. Vail's "Wellington" and "Meteor," and Mr. Prentice's "Fairfax"—so equally are they balanced in all the perfections that constitute a faultless animal, that I could only make up my mind that the one I looked at *last* appeared the *best*. The Colonel has also some most beautiful cows—there is "Stella," and "Daisy," and "Pansy," each vying with the other in claiming the distinction of "reigning belle" of the herd. There are a large number of other fine animals—some very superior calves and young stock among the rest. Col. S. has likewise some handsome Southdown sheep, and some very fine Merinos, from the flock of Mr. Blakeslee, of Connecticut; they are handsomely formed animals, and their wool is of a very superior quality and fineness. All of the fences, buildings, fixtures &c., about the Colonel's premises show him to be a systematic and thorough farmer. Would that we had many more such in the State.

T. H. H.

"Rural Home Farm," Rochester, Feb. 20, 1845.

## CULTURE OF WATER MELONS.

MR. TUCKER—Last season I raised a fine lot of water mellons, having (with others about here) failed for many years. Having removed the soil sufficiently to receive about half a bushel of horse stable manure and leached ashes, which were thrown in for the hill and levelled; about the same quantity of road side gravel, lodged at the foot of the hill by water, was also thrown in, and some of the soil thrown back, in which the seeds were planted; then over the hill a small quantity of broken charcoal was scattered. The plants were occasionally watered with wash water, or from the sink. The melons were fine and many of them weighed ten or twelve pounds.

J. A. RHODES.

Bridgewater, March 10, 1845.

"By rubbing an unripe apple upon a grater, and washing the portion which is rasped off, in cold water, starch will also be collected, which starch, had the apple been suffered to remain dead ripe, would have been converted into sugar, forming the sweet juice of the fruit."

## FARM FOR SALE—A BARGAIN.

**A** SPLENDID FARM FOR SALE AT AUCTION, with all the stock, farming utensils, furniture, &c. &c. The beautiful and valuable farm of Violet Bank, (situated in Delaware County, N. Y., seven miles from Delhi and four miles from Andes—one mile from the Presbyterian Church of Cabin Hill, and half a mile from the school,) with all the stock, consisting of horses, cows, sheep, pigs and young cattle, harnesses, a superior iron axle wagon but little worn, together with a full set of farming utensils, household furniture, beds, bedding, bedsteads, chairs, tables, parlor and cooking stoves, and a variety of other articles.

The buildings on this farm are almost all new, and consist of a frame dwelling house, plastered and hard finished, wagon house and horse stable also near, large barn, cow stable and wood-house; This farm is well watered, and measures 130 acres, two-thirds of which is under cultivation, and one-third well timbered, and would prove a desirable location for an industrious and enterprising farmer.

The farm, with the buildings, will be sold at auction, WITHOUT RESERVE, at Mr. Edgerton's Tavern in Delhi, on Wednesday, the 9th day of April next, at 1 o'clock, P. M.

The stock, furniture, &c. &c. will be sold on the premises on Thursday, the 10th of April, (the following day,) where the whole can be examined any day before the sale. For terms, which will be liberal, apply to Mr. D. CASE, Delhi, or to Mr. John IMRIE, Cabin Hill.

April 1, 1845—1t.

## LINNÆAN BOTANIC GARDEN AND NURSERY.

LATE PRINCE'S,

Flushing, L. I., near New-York.

**T**HE new proprietors of this ancient and celebrated Nursery, late of WILLIAM PRINCE, deceased, and exclusively designated by the above title for nearly fifty years, offer for sale, at reduced prices, a more extensive variety of FRUIT and ORNAMENTAL TREES, SHRUBS, VINES, PLANTS, &c., than can be found in any other Nursery in the United States, and the genuineness of which may be depended upon; and they will unremittingly endeavor to merit the confidence and patronage of the public, by integrity and liberality in dealing, and moderation in charges.

DESCRIPTIVE CATALOGUES, with directions for planting and culture, furnished gratis on application to the New Proprietors, by mail, post paid, and orders promptly executed.

WINTER & CO.

Flushing, L. I., April 1, 1845—1t.

Proprietors.

## AYRSHIRES.

**F**OR SALE, an imported Ayrshire bull and two imported Ayrshire cows, also three young Ayrshire bulls—they were selected in Scotland, and their superiors are not in this country. Apply, post-paid, to

MARK H. NEWMAN,  
199 Broadway, New-York.

April 1, 1845—1t.

## PERUVIAN GUANO.

**T**HE subscriber will keep constantly on hand for sale, in large or small quantities, the best quality of genuine Peruvian Guano. Price in single bags, weighing from 125 to 175 lbs., 2½ cts. per lb. for half a ton to one ton, 2½ " " over one ton to five tons, 2 1-8 " "

A. B. ALLEN,

March 20, 1845—2t.

205, Broadway, New-York.

## WANTS A SITUATION.

**A** MAN with a family wants a situation as farmer or gardener. He was brought up to farming in Galloway, Scotland, and considers himself well acquainted with the different branches of agriculture practiced both in that country and this. He has been several years in this country, and can give satisfactory references in this vicinity. His wife is well acquainted with dairying. Address W. McRoberts, care of D. LATHROP, Washington-street, Albany.

March 20, 1845—1t \*

## HORSE POWERS AND THRESHING MACHINES.

**T**HE undersigned takes this opportunity to give notice that an important improvement has just been added to the celebrated "Warren's Portable Horse Power Machines," which secures to these valuable inventions a continued superiority in all respects.

The particular attention of Southern and Western merchants, as well as Planters and Farmers, is specially invited. Such testimonials as follows, are in hand received recently in ordinary correspondence, viz:—"The machine has given entire satisfaction, and is considered by all who have seen it, the best they have ever met with for threshing fast and clean, preserving the straw whole, and from the simplicity of its construction, being little liable to get out of order."

Old prices still continued, viz:—two horsepower and thresher together, only \$75—four horse, \$110—one horse, \$60—threshers alone, \$20, \$25 and \$30—Leather bands, \$4 and \$5.

Liberal deductions made to those who purchase in quantities, for sale. Terms—cash, produce, or approved paper, on delivery in this city.

H. BARTLETT,

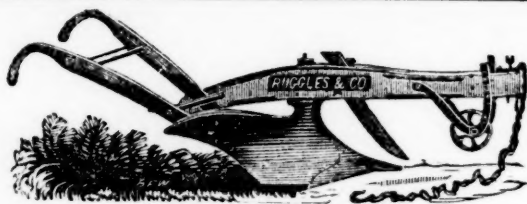
Successors to L. Bostwick & Co.

146 Front-street, New-York.

N. B.—Orders for Platt's celebrated Portable Mill, for hand, horse or other power, can be supplied at the exclusive agency in this city. The undersigned offers his agency also to procure for agriculturists and others, the most approved machines and implements, manures, seeds, &c. at moderate commission.

H. BARTLETT.

April 1, 1845—1t



QUINCY HALL

AGRICULTURAL WARE-HOUSE AND SEED STORE,  
BOSTON,

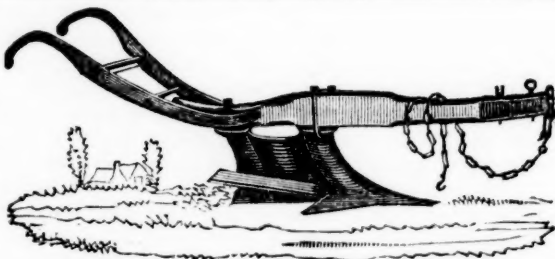
BY RUGGLES, NOURSE & MASON,

**M**ANUFACTURERS of the distinguished WORCESTER PLOWS, among which, are a variety of patterns and sizes, adapted to all kinds and conditions of soil and modes of culture throughout the several States, and including the several sizes of their celebrated EAGLE pattern, and the genuine Scotch SUBSOIL PLOWS.

They hazard nothing in saying that with large additions to their warehouse and stock, they now offer to the agricultural public and dealers, a much greater assortment of agricultural and horticultural implements, machines, and seeds, than can be found at any house in the Union; all of which are selected from the most approved kinds found in this country and Europe.

All communications and orders from a distance, will receive prompt attention, and goods safely packed.

March 20, 1845—2t\*



## WORCESTER EAGLE AND SUB-SOIL PLOWS.

**T**HE subscribers have now on hand a full assortment of the above superior Plows, manufactured by RUGGLES, NOURSE & MASON of Worcester, Mass. It is acknowledged by all who have made the experiment, that the "Improved Eagle," is the best Field Plow at present in use.

The advantage of Sub-soil plowing, is now very generally admitted, and the plows made for this purpose by Ruggles, Nourse & Mason, are constructed upon the most approved principles.

Side Hill Plows, Cultivators, Straw and Root Cutters, and a general assortment of farming implements, for sale at the Hardware store of PRUYN, WILSON & VOSBURGH, Albany, April 1, 1845—2t. 39 State-street.

## PREMIUM EAGLE, SUBSOIL, AND OTHER PLOWS.

**T**HE subscriber having been appointed sole Agent in this city, for the sale of the celebrated Premium Plows, made by Ruggles, Nourse & Mason, of Worcester, Massachusetts, now offers them for sale at the manufacturer's home prices. They are calculated alike for the Northern Farmer and Southern Planter, and embrace all varieties. Price from \$3.50 to \$11.50.

The great number of premiums which these plows have obtained at the most important plowing matches, and the universal satisfaction they have given wherever introduced, renders it unnecessary to particularise their merits. They are made of the best materials, are highly finished, and combine light weight and easy draft, with great strength and durability. Though the first price is higher than the common kinds, they do their work in so superior a manner, and with a draft so much easier for the team, that they are universally preferred where known. It has been repeatedly proved that a single pair of oxen, horses, or good mules attached to the Eagle plow, No. 1, in any reasonably friable soil, will easily turn a furrow of 6 inches deep by 12 inches wide. In addition to the above good qualities, being made of the best materials and highly finished, these plows last much longer than the common kind; they are consequently much the cheapest in the end.

SUPERIOR HAND AND HORSE CULTIVATORS. These are made at the same manufactory. Price from \$3 to \$6.50.

A NEW IMPROVED DRILLING MACHINE. This is calculated for sowing all kinds of seeds. Price, \$10. A. B. ALLEN. March 20, 1845—2t. 205 Broadway, New-York.

## PLOWS.

**A**T the Syracuse Agricultural Warehouse and Seed Store, can be obtained Delano's celebrated Diamond Plow made by Mr. Howard Delano, of Mottville, for the sale of which, we are sole agents for this town. Price, \$6 for plain plow, and \$10 for the wheel, coulter and cleve. Also, a full assortment of the well known Massachusetts Plow, made by Ruggles, Nourse & Mason of Worcester. 300 bushels seed barley, 300 do. pure Marrowfat Peas, 100 do. Clover seed, 150 do. Timothy, and a general assortment of all the varieties of seed sown by the tillers of the soil; Cultivators, corn plows, Wheel-barrows, Churns, Cheese Tubs, Cheese Cloth, Hoops and Presses, Hoes, Manure, Hay and Barley Forks, Shovels and Spades; and a very great variety of articles appertaining to the interest of the husbandman. Orders promptly executed.

Syracuse, April, 1845.

FOSTER & NORTH



## VALUABLE WORKS, BY A. J. DOWNING, Esq.

**ON LANDSCAPE GARDENING.**—A Treatise on Landscape Gardening: adapted to North America, with a view to the improvement of Country Residences. Comprising historical notices, and general principles of the art; directions for laying out grounds, and arranging plantations; description and cultivation of hardy trees; decorative accompaniments to the house and grounds; formation of pieces of artificial water, flower-gardens, etc.; with remarks on Rural Architecture. New edition, with large additions and improvements, and many new and beautiful illustrations. By A. J. Downing. 1 large vol. 8 vo. \$3.50.

"This volume, the first American Treatise on this subject, will at once take the rank of the standard work."—[Silliman's Journal.]

"Downing's Landscape Gardening is a masterly work of its kind—more especially considering that the art is yet in its infancy in America."—[London's Gardener's Magazine.]

**COTTAGE RESIDENCES.**—Designs for Cottage Residences, adapted to North America, including Elevations and Plans of the Buildings, and Designs for Laying out Grounds. By A. J. Downing, Esq. 1 vol. 8 vo. with very neat illustrations. Second edition, revised. \$2.00.

The "Cottage Residences" seems to have been equally well-timed and happily done. Country gentlemen, no longer limited to the meager designs of uneducated carpenters, are erecting agreeable cottages in a variety of styles suited to the location or scenery. Even in the West and South there are already many striking cottages and villas built wholly, or in part, from Mr. Downing's designs; and in the suburbs of some of the cities, most of the new residences are modified or moulded after the hints thrown out in this work.

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The above works are published by WILEY & PUTNAM, 161 Broadway, New-York, and may be ordered through an Bookseller in the country. March 20, 1845—It.

## MOUNT HOPE BOTANIC GARDEN &amp; NURSERIES, ROCHESTER, N. Y.

**THE** Proprietors respectfully announce, that their present stock of **FRUIT AND ORNAMENTAL TREES, SHRUBS AND PLANTS** is unusually fine.

The collection of fruits comprises the most esteemed American and Foreign varieties; the trees are handsome, thrifty, and of the most suitable age and size for successful transplanting; and being propagated with the most scrupulous care by the proprietors themselves, either from bearing trees in their own grounds, or from others of undoubted correctness, can with confidence be recommended as **GENUINE**.

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Over 2,000 trees of the valuable native apple the "Northern Spy" are yet on hand; this is generally acknowledged to be one of the best varieties cultivated.

The collection of Roses is very fine, including a very choice assortment of Standard or Tree Roses, 4 to 6 feet high; these are beautiful objects for lawns or borders—most of them are perpetual, or ever-blooming.

A large and splendid stock of Green-house Plants, including the finest new varieties of Roses and Geraniums, &c., are on hand, and are offered at low prices.

Trees, Shrubs, Plants, &c., securely packed for transportation to any part of the country.

Priced Catalogues sent gratis to all post-paid applications.

The public are respectfully invited to visit the establishment—location, nearly opposite the Mount Hope Cemetery.

All orders and communications must be addressed, post-paid, to

ELLWANGER & BARRY.

N. B. Scions of the "Northern Spy" apple, and other choice varieties, will be furnished in small quantities  
Rochester, April 1, 1845—It.

## EXTENSIVE SALE OF IMPROVED SHORT HORN-ED CATTLE.

**H**AVING become over-stocked, I find myself under the necessity, for the first time, of publicly offering my cattle for sale; and that the opportunity to purchase fine animals may be made the more inviting, I propose to put in my **ENTIRE HERD**—such a herd of improved Short Horns as has never before, perhaps, been offered by any individual in this country. The sale will embrace about fifty animals, Bulls, Cows and Heifers; all, either imported, or the immediate descendants of those which were so, and of perfect pedigree. Those imported, were from several of the best stocks in England, selected either by myself or my friends.

It is sometimes the practice at sales of this kind, where the interest involved is considerable, for the proprietor to protect himself by buy bidders, or some other kind of management, or for the owner to stop the sale if offers do not come up to his expectations or the requirements of his interest. Such practices have a tendency to lessen the interest in public sales of this character, especially with those who cannot attend without considerable personal inconvenience. But in this case, assurances are given that no disappointment shall arise to the company from either of the causes mentioned, and a good degree of confidence is felt that there will be no dissatisfaction from the character of the cattle themselves. They shall all be submitted to the company, and sold at such prices as they choose to give, without any covert machinery, effort, or understanding with any persons; reserving to myself only the privilege of bidding openly on three or four animals, which shall first be designated. This reservation is made that I may not get entirely out of the stock of some particular families which I highly esteem, and that could not probably be replaced.

A full catalogue will be prepared and inserted in the May number of the Cultivator.

The sale will take place at Mount Hope, one mile south of the city of Albany, on Wednesday, the 25th day of June next, at 10 o'clock A. M.

E. P. PRENTICE.

Mount Hope, near Albany, March 15, 1845.

Gentlemen from a distance, who wish to obtain stock at the above mentioned sale, and may find it inconvenient to attend in person, are informed that the subscriber will make purchases for those by whom he may be authorized. They can state the sum at which bids should be limited, and if convenient, designate the animals they would prefer; or give such general instructions as they may deem proper, under the assurance that they will be strictly adhered to.

SANFORD HOWARD.

Cultivator Office, Albany, March 15, 1845.

## SALE OF FULL BLOODED NORMAN HORSES.

**THE** subscriber having relinquished farming, will offer at public vendue, at his farm in Moorestown, Burlington county, New-Jersey, nine miles from Philadelphia, on Tuesday, the 20th of May next, his entire stock of **NORMAN HORSES**, consisting of two Imported Sires, "Diligence" and "Bonaparte;" two Imported Mares—three full blooded Stud Colts, one, two and four years old—two full blooded Fillies, three and four years old—two Fillies by "Diligence," from a half blood Canadian Mare, three and four years old, and one Filly four years old, by "Diligence," from a well bred English mare, broke and kind to harness.

The undersigned deems it unnecessary to speak at large of the qualities of these horses, so much having been said of this particular importation, (which is believed to be the only one ever made to the United States,) in all the principal agricultural papers. In a few words, they are the Canada Horse, on a larger scale, combining the form, activity and hardihood of that well known race, with greater size and strength. "Diligence" has been a remarkably successful stallion; he has been exhibited at the Fairs of the Pennsylvania and New-York Agricultural Societies, where he was not entitled to compete for the premiums, but received the highest encomiums from the Committees. At the Fair of the American Institute, in New-York city in October last, he received the Silver Medal of the Institute.

It is expected that a large number of the colts of "Diligence" will be on the ground on the day of sale, some of which, no doubt, may be purchased.

EDWARD HARRIS.

Moorestown, Burlington Co., N. J., March 15, 1845—2t.

## DURHAM BULL AND HEIFERS FOR SALE.

**THE** subscriber offers for sale at moderate prices, during the present month, his full blood 4 years old Durham bull, Don Pedro; bred from the stock of Francis Rotch, (a fine animal,) and a number of choice heifers, full blood and grade, one and two years old. Also, a good second hand lumber wagon, cheap. First call, first served. Should the bull not be sold, I would exchange him for another of the same breed, having now had him with my cows for three years, and wishing to change.

DOLPHUS SKINNER.

Deerfield, (near Utica,) April 1, 1845—1t\*

## ADVERTISEMENT.

**POUDRETTE** of the best quality, prepared by the New-York Poudrette Company, may be had on application to the undersigned, No. 23 Chamber-street, New-York. Poudrette prepared by this company, was used in larger quantities in 1844 than during any previous season, and with very general success, as may be seen by reference to the numerous reports in relation to it now in my possession, a few of which may be found in the Cultivator for April. The price is, as last year, \$5 for three barrels, and \$15 for ten barrels, or thirty cents a bushel in bulk at the Factory. Orders by mail, enclosing the cash, will be as promptly and carefully attended to, as if made personally, by

D. K. MINOR.

April 1, 1845—2t.

23 Chambers-street, New-York.

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## BOMMER'S METHOD AT REDUCED PRICES.

THE cheapness and expedition, by which manure may be manufactured with the Bommer process, and the various substances to which it may be successfully and advantageously applied, render it a valuable acquisition to every farmer that will adopt it. To facilitate its general introduction, it is proposed to sell the method uniformly at five dollars. Any individual shall be promptly furnished with a copy of the method without charge of postage, who shall remit the cash by mail to the general agent. It is intended to employ a competent travelling agent, as soon as practicable, in each county. My general agency includes the States of New-York, New Jersey, Virginia, Delaware, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine and Vermont.

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Wanted immediately, 100 active, intelligent and enterprising men to engage as travelling agents in the above mentioned States. Unquestionable testimonials will be required; and responsible securities will be expected, as guarantees, for the faithful discharge of the duties of the appointment. Persons of suitable qualifications, will find this both a useful and lucrative employment. Applications, if by mail, should be post paid and directed to me, at Westville, New Haven Co. Connecticut.

ELI FARNETT, General Agent.

Westville, March 1, 1845.

A *AMERICAN Farmers Encyclopedia*, price \$4—*Skinner's Cattle* & *Sheep*, price 50 cents, and a variety of other works, for sale at the office of "The Cultivator."

## THE ROCHESTER NURSERY—BY S. MOULSON,

CONTAINS a splendid collection of fruit trees, the Northern Spy, St. Lawrence apples, and most of the new varieties worthy of the notice of connoisseurs, together with the most approved kinds of cherries, plums, pears, &c., also hardy shrubs, evergreens, &c., orders respectfully solicited. Trees packed suitable for long distances, when required. Six to twelve months credit given for approved notes on interest.

Rochester, March 20, 1845—11.

S. MOULSON.

## PROUTY &amp; MEARS'

PATENT Centre Draught Self Sharpening Ploughs, from \$6 to \$13 each—Subsoil Ploughs at \$8, \$10, and \$12 each—Corn Planters \$12 to \$15—Straw Cutters in variety—Meat Cutters and Stuffers—together with every implement wanted on the farm or garden. Also a full assortment of Vegetable, Flower and Field Seeds, crop of 1844, warranted of the best quality and true to name; among them are several new and superior kinds, as Seymour's Giant Celery, Union Head Lettuce, &c. &c. Fruit Trees, Bulbous Roots, &c. for sale at the Philadelphia Agricultural Ware House and Seed Store No. 194 1-2 Market Street, Phil'a, by D. O. PROUTY.

January 20—21.

## SEED STORE AND AGRICULTURAL WARE-HOUSE.

OUR Spring supply of seeds is now ready, and we shall be happy to receive orders for Field or Garden Seeds, of every description, Black Sea, Italian and Siberian Spring Wheat, Barley, Peas, Clover Seed, Timothy Seed, Seed Corn, Shaker and other Garden seeds, &c. Also, a full assortment of farming tools selected from the best manufacturers in the country. Hoes, Scythes, Forks, &c. cheap by the dozen.

Rome, Oneida county, March 1, 1845.

E. COMSTOCK.

## ROME PLOW FACTORY.

THE DIAMOND Plow which received the first premium at the State Fair at Poughkeepsie, as well as at every County Fair where it has been shown, is manufactured by the subscribers in the very best style, and for sale at wholesale or retail. Also, some eight or ten patterns of approved plans, as well as Scrapers, Cultivators, Cradles, Mott's Agricultural Furnaces, &c. Orders from abroad promptly filled, and a liberal discount to dealers.

March 1, 1845.

Rome, Oneida county.

BRAINERD & COMSTOCK

## ALBANY SEED STORE.

THE proprietor is now receiving from his seed growers, a full and complete assortment of American Garden Seeds, all of which are selected with care, being grown from the best varieties of vegetables to be found in the country; also European seeds, plants and flower seeds from the best establishments in Europe and America.

Fruit trees of all the choicest kinds furnished to order at the lowest market prices, and warranted true as represented. Agricultural and horticultural implements of American and European manufacture. Also, Root-Slicers, Corn-Shellers, Straw-Cutters, &c. Those who wish to purchase or examine are respectfully invited to call.

W. THORBURN, Seedsman & Florist.

March 1, 1846—3 t.

corner of Broadway and Maiden Lane.

## FOR SALE.

THE splendid two years old Bull "Marius," belonging to Thomas Oliver Esq., of Riversdale, Sing Sing. Marius was imported in 1843 from the far famed stock of Earl Spencer, of Wiseton, Northamptonshire, and was subsequently exhibited at the State fair, held at Poughkeepsie, in 1844, at which place he took the first premium of the yearlings in the short-horned class, as also that of the year olds against all classes then exhibited. Subsequently at the Fair of the American Institute last autumn, he was again awarded the first prize for the yearlings of his class. He is a Roan Bull of the most complete symmetry, and although only two years old on the 5th of last Dec., weighs about 20 cwt.

Pedigree—Marius, a Roan Bull—calved December 5th, 1842, got by Roman, dam by Waverly—gr. dam by Satellite—gr. g. dam by Cato—gr. g. g. dam by St. John—gr. g. g. g. dam by Chilton—gr. g. g. g. g. dam by the White Bull—gr. g. g. g. g. g. dam by Favorite—gr. g. g. g. g. g. g. dam by Duke. Signed, George Earl Spencer.

Letters, post paid, may be addressed to the subscriber.

Sing Sing, N. Y. Jan. 28, 1845.—11.

JOHN LUMSDEN.

## CONNECTICUT SEED LEAF TOBACCO SEED.

THE true broad and narrow Seed Leaf Tobacco Seed, selected from growth of 1844, for sale at the Seed Store of the Hartford County Agricultural Society, by E. W. BULL, Seedsman.

Feb. 1—31.

## AGRICULTURAL CHEMISTRY AND GEOLOGY.

CATECHISM of Agricultural Chemistry and Geology, by C. James F. W. Johnston, M. A. F. R. S. S. L. & E. with an Introduction by John Pitkin Norton of Farmington, Ct., from the 5th English edition with notes and additions by the author, prepared expressly for this edition.

N. B.—The above work, first published a year ago, has already gone through eight large editions, and is now used in 3,000 schools in Ireland, and nearly all the schools in Scotland. The present edition, improved from the eighth, and adapted to this country, is now ready—price 18½ cents. A liberal discount allowed to the trade. All orders promptly attended to.

ERASTUS H. PEASE,

Albany, March 1, 1845.

Publisher, 82 State-street.

Printed at the Steam Press of C. Van Benthuyssen & Co.